

TEACHERSCOLLEGE COLUMBIA UNIVERSITY

## Contents

1 Teachers College
Defining the Work of Educators
4 An Introduction to Teachers College

37 Academic and Educational Services

62 Faculty M embers and College Officials

97 PROGRAMS OF STUDY

282 Degree Requirements

285 Registration, Expenses and General Regulations

291 Residence Hall Information

294 Admissions Application Information

297 Financial Aid Information

301 Application for Admission

303 Letter of Reference

305 Residence Hall Application

307 Student Aid Application

XXX
INDEX
Correspondence Directory

Notice of Nondiscriminatory Policy
How to Get to Teachers College

Map

## TEACHERSCOLLEGE

Soon after being named president of Teachers College, I received a letter from a well-known educator suggesting the College change its name. The author reasoned that Teachers College is the largest and most comprehensive graduate and professional school of education in the country.

Teachers College focuses on education in the broadest sense of the word- in and out of the classroom and across the life span. A third of our students are in teacher preparation programs. The rest are planning on careers in administration, policy, research and teaching in fields ranging across education, health and psychology. The proposal certainly had merit, but it was at the same time impossible. The most valuable possession we have at Teachers College is our name. The name summons a powerful historical legacy. Teachers College began al most a century ago with the radical mission of preparing a new breed of professional educators. In the years since, Teachers College has been a leader in defining the


Arthur E. Levine,
President,

Top Ranked in U.S. News Survey
Teachers College is again in the top rankings in the 2001 U.S. N ews and World Report survey of schools of education. In specialty programs, Teachers C ollege is in the top ten in Administration/Supervision, Education Policy, Educational Psychology, Elementary Education, Secondary Education, Higher Education Administration, and Curriculum/Instruction.
work of educators and the nature of their field. It has attracted to its faculty the greatest minds in education and educated the students who have led the field.

The name Teachers College al so stands for a vital and enduring mission.
For more than 100 years, the College has been committed to:

- Engage in research on the central issues facing education.
- Prepare the next generation of leaders of education.
- Educate the current generation of leaders in practice and policy to meet the challenges they face.
- Shape the public debate and public policy in education.
- Improve practice in educational institutions.

We live in an age in which our world is changing dramatically and quickly. Our educational institutions and the educators who lead them are being buffeted by demographic, economic, global and technological change.

Our work at Teachers College today, as it was yesterday, is to create the programs, carry out the research and develop the models that will guide educators and the institutions they serve. Should you decide to join us as graduate students, you will share in the excitement of an environment for learning on the leading edge of educational reform and innovation.


Arthur E. Levine
President
Teachers C ollege, Columbia U niversity


## A Strategy of Engagement

"If there is an abiding philosophy that best characterizesTeachers College it is engagement. A founding principle of Teachers C ollege, this concept of engagement is embodied in a constant cycling of theory and practice designed to improve the environment for learning in the society at large. It is played out in the teaching, research, training and consulting that engage our faculty and the learning, internships, practice teaching and dinical projects that engage our students. The classoom becomes the forum for faculty and students alike where concepts, theories, tools and skills are integrated to give perspective and purpose to the education issues we address. It is the ultimate expression of learning by doing."

Craig E. Richards, Professor of Education

A Leadership Role
Teachers College instills in its students the capability to solve problems, motivate learners, inspire hope, raise standards, and take charge of change. It is an approach that leads our students to value independent thinking and persist in lifelong learning.

This vision, renewed and invigorated to meet the changing times, has kept Teachers College in the vanguard of important advances in education during critical periods of the last century. As we confront new challenges, both formidable and unrelenting, we once again are poised to prepare our students for leadership in an age of education where uncertainty reigns and the need for reform rules.

Teachers College sees its leadership role in two complementary arenas: One is as a major player in policy making to ensure that schools are reformed and restructured to welcome learning for all students regardless of their status or station. The other is in


Professor Craig Richards
preparing educators who not only serve students directly but coordinate the educational, psychological, behavioral, technol ogical, and health initiatives to remove the barriers and impediments to learning at all ages.

In that regard, we have streamlined our own academic organization to be more responsive to the ideas and interests of our institutional community. By housing programs that complement and reinforce each other in a welcoming department, we are giving faculty and students alike exposure across disciplinary fields and opening up dial ogues that encourage
the discussion of different and competing points of view.

Because we are a graduate school, our students have greater contact with faculty members as academic colleagues and more opportunities to pursue independent or faculty-sponsored research and scholarship. M oreover, we have reinforced our commitment to strengthen the linkages between theory and practice.

W hatever career path is taken by Teachers College graduates, we want them to understand the real world issues likely to be encountered as professionals and prepared to address the critical areas that determine the fate and future of education covering all of its scope and reaching all of its levels.

By the same token, we are providing practicing professionals already in leadership roles with the new thinking and approaches demanded in a society weathering serious traumas to its institutional structures.


## Teachers College, What It Is and Where It Is

"Teachers C ollege offers students more than a degree, as important as that is. W hat really distinguishes the C ollege is what it is and where it is. Where it is, isin New York City where our students study the array of educational problems and policies played out in real classrooms filled with students of all backgrounds. What it is, is a community of scholars where students join with faculty as colleagues to present and discuss front-line issues of education. In fostering school reform, we believe in making a difference in the classroom where learning takes place. O ur role is not to di spense community service nor focus on deficits, but to recognize and build on the unrealized strengths that youngsters bring to the classroom."
James H. Borland, Associate Professor of Education and Chair of the Department of Curriculum and Teaching

## The Learning Environment

In its new configuration, Teachers College has organized its academic programs into nine departments augmented by centers, institutes and projects that reinforce instructional areas with research, service, and experiential initiatives. Nolonger do overarching issues remain imbedded in curtained-off disciplines, but are vigorously and provocatively explored in an interdisciplinary and holistic context.

For organizational purposes, we have established nine departments, including Departments of:

- Arts and H umanities
- Biobehavioral Studies
- Counseling and Clinical Psychology
- Curriculum and Teaching
- Health and Behavioral Studies
- Human Development
- International and Transcultural Studies
- Mathematics, Science and Technology
- Organization and Leadership

Here, then, in summary form, is a review of the scope and depth of the learning environment at Teachers College (see succeeding sections for more detailed descriptions).

## Ideas and Information

D epartment of A rts and H umanities Teachers College is heavily invested in the intellectual interests and creative ideas that extend beyond the traditional concerns of schooling to engage human endeavors across the lifespan. O ur concerns are the values and philosophies underpinning con-
temporary school reform. W hat that means in educational terms is an emphasis on inquiry to explore and anal yze competing ideas; a focus on habits of mind to develop and sustain critical thinking; and the role of discovery in expanding our store of knowledge.

Crucial in establishing this foundation for lifelong learning are academic programs in the Department of Arts and Humanities. Concentrations in the Arts include Art and Art

Associate Professor J ames H. Borland


## Understanding Childhood Development

The role of psychol ogy in education is to help teachers understand childhood development and its impact on the educational process. In particular, psychologists play a critical role in providing teachers with insights in how children experience feelings of attachment and separation, peer cooperation and conflict. And, in classroom encounters,
teachers need support in dealing with problem youngsters, socialization of the classoom, stress, parent-teacher relationships, and the pressures and influences in outside communities where youngsters are rai sed. Along with our focus on children, we also help teachers overcome the stress inevitably associated with teaching. Thequestion is whether teachers have enough coping mechanisms or sufficient rewards to handle stress before it leads to burnout."

Barry Farber, Professor of Psychology and Education


Professor Barry Farber leading a seminar on the role of psychology in the educational process across the lifespan.

Education, Arts Administration, Dance and Dance Education, and Music and Music Education. H umanities houses concentrations in History and Education, Philosophy and Education, Religion and Education, and Social Studies. The concentrations in Languages and Literature are A pplied Linguistics, Teaching of English and English Education, Teaching of English to Speakers of Other Languages (TESOL), and Teaching of Spanish.

Associated research and service forums include the Center for the Arts, Social Imagination, and Education, the Center for Arts Education Research, and
the Center for the Study of the Spiritual Foundations of Education.

Function and Communication
Department of Biobehavioral Studies Biological deficits often profoundly limit the capacity of youngsters and adults alike to function and communicate fully in school and in the lifetime that follows.

To address such issues, the Department of Biobehavioral Studies includes such programs as A pplied Psychology, exploring the physiological effects of exercise and training to improve health and physical fitness; M otor Learning, the development, acquisition, and control of motor skills; and Speech-Language Pathology and Audiology, providing therapeutic approaches to minimize and correct speech, language, and hearing disorders.

In that regard, the Edward D. Mysak Speech-Language and H earing Center offers evaluation and therapy services to individuals with speech, voice, language, or hearing problems.

## Mental Health Concerns

Department of Counseling and
Clinical Psychology
The D epartment of Counseling and Clinical Psychology focuses on the psychological and mental health concerns experienced by children, adolescents, and adults in family, school, community, and work situations.

The program in Clinical Psychology explores the etiology and treatment of such maladaptive behaviors as drug and alcohol abuse, violent and high-risk conduct, depression, schizophrenia, and child abuse. Counseling Psychology concentrates on less severe problems in living as well as on normal developmental patterns of identity formation (including racial and gender identity), and vocational choice.

The academic programs are reinforced by research, community interventions, and practica offered through the auspices of the Center for Education and Psychological Services.

## Restructure and Reform

Department of Curriculum and Teaching

Teachers College is a pioneering presence in restructuring and reforming our educational systems. The College engages in research and develops pilot projects to create model school environments where teaching standards are met and learning expectations are realized.

In the Department of Curriculum and Teaching and associated centers and institutes, Teachers College places a high priority on the initiatives that lead to reasserting leader-

The learning environment at the Center for Toddlers and Parents.
ship in education. Central among them are promoting an understanding of teaching and learning processes for learners from birth to adulthood; enhancing the reading and writing skills of youngsters; breaking down bureaucratic barriers to foster school-based reforms; giving administrators and teachers the backing and resources to develop creative learning concepts; helping educators meet the needs of exceptional children in inclusive settings; and instituting academic rigor and accountability to encourage high performance standards.

The departmental programs include Curriculum and Teaching, Early Childhood Education, Early Childhood/Special Education, Elementary/Childhood Education (Preservice), Gifted Education, Learning Disabilities and Reading and Learning Disabilities.

Research and service support for its academic programs come from the Hollingworth Center for Study and Education of the Gifted, N ational Center for Restructuring Education, Schools, and Teaching (N CREST), and the Reading and Writing Project.


A Variety of Approaches to Teach Hearing Impaired Children
"In preparing teachers to work with hearing impaired children, I take the politi cally incorrect position that there is more than one way to teach the deaf or hard of hearing student. Therefore, if a child is oriented orally, I encourage teachers to emphasize lip reading and the spoken word. Should signing be dominant, I recommend maximizing ASL or American Sign Language. M y allegiance is to the child, not the communication modality. Teachers should pursue whatever is best and works best for the child. To achieve that balance, I stress the fact that the hearing impaired population is incredibly heterogeneous. No two deaf persons are the same. So we treat different people differently."

Robert E. Kretschmer, Associate Professor of Education and Psychology

## Health and Learning

Department of $H$ ealth and $B$ ehavior Studies
H ealth and learning are inextricably intertwined. Optimal learning cannot take place in an atmosphere rife with physical, psychological, social, and health problems. On the other hand, optimal health cannot be achieved without learning skills and literacy.

The Department of $H$ ealth and Behavior Studies seeks to enhance one's learning potential by overcoming health-related constraints and other barriers to literacy. Components of that approach include programs in A pplied Educational Psychology, H ealth Studies, and Special Education.

A cademic interests are complemented by the research and service of the Center for H ealth Promotion, Center for Education and Psychological Services, and Center for Opportunities and Outcomes for People with Disabilities.

## Developmentand Research

D epartment of $H$ uman $D$ evelopment Teachers College has been producing scholars in the social sciences for almost 100 years. Now, however, the chal lenge is greater than ever before to develop theories and methods of social science- particularly psychology and sociology- that can be used to promote the development and well-being of infants, children, and adults; help teachers understand their students' learning and intellectual abilities; develop and evaluate intellectually stimulating and effective programs of instruction, and assure that the benefits of education for all individuals, especially the disadvantaged, whose ability to gain from education may be at special risk.

The Department of H uman Development is dedicated to meeting this chal lenge through the multi-disciplinary study of development and education across the lifespan and in the social contexts in which they occur.


Associate Professor Robert E. Kretschmer

That pursuit finds expression in such programs as D evelopmental Psychology; Cognitive Studies in Education; M easurement, Evaluation and Statistics; Politics and Education, Psychology in Education, and Sociology and Education. A forum associated with human development issues is the Center for the Study of Young Children and Families.

A World View of Education Department of International and Transcultural Studies W hat once stood as a world with well-defined jurisdictional borders now is unable to withstand the flow of populations, information, ideas,

## New Dean Named at Teachers College

D arlyne Bailey is the new Vice President for Academic Affairs and D ean at Teachers C ollege Professor Bailey comes to Teachers C oll ege after serving as D ean of the M andel School of Applied Social Sciences at CaseWestern Reserve University. Deccribing the appointment as groundbreaking, Teachers C ollege President Arthur E. Levine, said "Professor Bailey will tieTeachers C ollege into the community and families, not jut schools." As she did in Cleveland, Professor Bailey sees as her "personal mission" to engage Teachers College in community affairs, enhancing "this venerable institution's commitment to social justice, stengthen the public policy agenda for education and get the 'best and brightett out into the world to join forces with others to change the quality of the human condition."
goods, and services across national boundaries. W hile geographic designations remain, the rush of technological advances has removed long-standing barriers to new forms of communication.

W hat has emerged is a diversification of people and resources that is transcultural in context and international in scope, operating across as well as within national boundaries. Increasingly, a global presence, transcultural and international forces are crucial in understanding education in every domain of human experience. Thus, the Department of International and Transcultural Studies is a pioneering force in this field with a program focus on Comparative and International Education/ International Education Development,
Bilingual/Bicultural Education, and Economics and Education. Added institutional elements are the Elbenwood Center for the Study of Family as Educator, Institute on Education and the Economy, and Institute of International Studies.

Advances in Frontier Thinking D epartment of $M$ athematics, Science and Technol ogy
Societies and cultures are settings within which science, mathematics, technology and communications media develop and the forces that frame the work they are to do. Technological developments, driven by science and mathematics, can advance and change cultures, but societal and cultural forces can also act to constrain or limit technological development.

Understanding the interrelationships among science (including mathematics), technology (including communication media) and society (including culture) as foundations upon which education and the work of educators is based is the central consideration of the Department.

These concerns are structured programmatically in Anthropology and Education and A pplied Anthropology (for society and culture); Communications and Education, Computing
and Education, and Instructional Technology and Media (for technology), and the College programs in M athematics and Science Education. The Institute for Learning Technologies is a service and research forum promoting uses of digital communications technologies to advance innovation in education and society. A nother venue, the Center for Technology and School Change helps schools plan for change brought about by the technology.


Darlyne Bailey, Vice President for Academic Affairs and Dean of Teachers College


The Education of Professionals
D epartment of Organization and Leadership

Beyond the campus, Teachers College is becoming more visible as a principal player in the formation of public policy and the policy discussions that govern the future course of education. We have constituted programs for educational professionals and practitioners and influential members of the public and private sectors to focus on the profound changes that have enveloped our entire educational system.

To achieve that goal, we are bringing together national leaders from business, the media, foundations, labor, government, and education to give priority attention to resolve the issues destined to return confidence, credi-
bility, and distinction to environments wherever learning takes place.

In pursuit of that initiative, the Department of Organization and Leadership incorporates such programs as Educational Administration, Higher and Adult Education, N urse Executive/H ealth Administration, and Social-O rganizational Psychology.

The research and service organiza tions associated with leadership initiative are the K lingenstein Center for Independent School Education, Institute of Higher Education, Institute of Research and Service in N ursing Education, and International Center for Cooperation and Conflict Resolution.
"Never before as a teacher have I felt more empow ered and connected to the global community as I did when 32 laptops arrived in my classroom. When used extensively and from a child-centered point of view, technology helps education w ork as it should. In that sense, teachers, administrators, students, parents and community and corporate partners interact to discuss the future of education and how best to benefit children from technological innovations."
Christine M ulgrave

## Teachers College Today

Given the scope and breadth of its offerings and initiatives, Teachers College is more than its name implies. Indeed, we are a premier training ground of teachers and administrators. But our institutional reach extends much further to encompass the education of psychologists, biobehavioral and behavioral scientists, health professionals, policy analysts, technologists, and internationalists.

Teachers College today defines itself as a graduate and professional school of education in the broadest sense of the term - concerned with education across the lifespan both in and out of the classroom. It is an education engaged with society and in support of its culture.

## Research on Critical

 IssuesTeachers College students are taught by professors who are outstanding researchers, scholars, and practition-ers- most of whom have had professional day-by-day experience in schools or in running school systems, health institutions, psychological clinics, and other services.

Faculty research, mostly conducted in association with students, informs the teaching of our professors. In fact, Teachers College students often are the first to hear about projects that can redirect educational practice and policy. Here are examples of recent faculty research:

## Improvements in Reading and Writing

Lucy McCormick Calkins, Professor of English Education and founder of the Reading and Writing Project, continues to refine techniques for the

teaching of writing and reading that are used in classrooms all over the world. Professor Calkins and her staff currently are involved with teachers from more than 600 schools investigating ways in which teachers can help students use their reading to improve their writing. The approach is to involve favorite authors as comentors in the creation of writing that is relevant to the children's lives. In her recent book, Raising Lifelong Learners, Professor Calkins points out


J ay P. Heubert, Associate Professor of Education and Law
that an open and creative approach to conversations, chores, and games is as important as reading, writing, and mathematics.

## Legal Issues in Education

J ay P. H eubert is an A ssociate Professor of Education and Law with an Ed.D. in Administration, Planning and Social Policy from the H arvard Graduate School of Education and a J.D. from H arvard Law School. His research is focused on legal issues in secondary and postsecondary education, equal educational opportunities, educational testing, law and school reform, sexual harassment, and services for immigrants. Professor H eubert brings to these issues experience as a trial attorney in the Civil Rights Division of the U.S. Department of J ustice where he litigated federal cases involving educational

Alexa Stott, a teacher at PS 199, works with tw o students as part of the Reading and Writing Project.

## Don't Believe in Magic

You'd have to believe in magic to think that two or three years of quality preschool education would ever hold up in the wake of weaknesses in later public school programs. In fact, it is a testament to the strength of some early childhood programs that effects persist through the adolescent years. To enhance their effectiveness, we need to carry over to the elementary, middle school and high school experience the components of early childhood programs that proved beneficial - high teacher-student ratios, small classes and language and emotional support. Start strong and stay strong.

Jeanne Brooks-Gunn Virginia and Leonard Marx Professor of Child and Parent Development and Education
testing, employment discrimination, special education, and desegregation. His publications include two forthcoming works: "Schools W ithout Rules? Charter Schools, Federal Disability Law, and the Paradoxes of Deregulation in the H arvard Civil Rights Liberties Law Review and Law and School Reform published by the Yale University Press.

## to Do or Not To Do Homework

In a nationwide survey of 1,000 families on how youngsters spend their time, the Center for Children and Families found a surprising number of elementary schoolers did not do any homework, about onethird, and, of those that did, two-thirds of their parents provided no help.

In contrast, according to the project's director, J eanne Brooks-Gunn, Virginia and Leonard M arx Professor of Child and Parent Development and Education, "about four-fifths of the teachers reported that they assigned homework. It seems," Professor Brooks-Gunn added, "that a signifi-
cant proportion of A merican parents are not highly engaged in their children's elementary school experience. At the same time," she acknowledged, "another large cluster of American families are very connected, as evidenced by the number of children spending time on homework assignments."

To encourage participation in the child's schooling, particularly at the younger grades, Professor BrooksGunn suggested such possibilities as "homework hotlines, better avenues of communication between teachers and parents about exceptions for involvement, parental support groups to discuss homework issues and information about what type of parental involvement is helpful and how parents can best help their children with homework."

## An Even Hand on School Choice

Private initiatives in education that include vouchers, charter schools and educational contracting have created a hailstorm of support and opposition


Professor J eanne Brooks-Gunn
with little or no foundation to measure their impact.

Proponents of the movement maintain that private sector competition not only gives parents a better education choice but will force substantive reforms on poor performing public schools. The opposition argues that privatization deprives troubled public schools of the students and resources to bring about reform and runs counter to First Amendment prohibitions against state support of religious-based schools.

## How Children Understand Mathematical Concepts

"We are observing children at work with mathematics and interviewing them in detail about their thinking. We are not interested so much in right and wrong answers as in understanding how children understand concepts of mathematics. A knowledge of their thinking can lead us away from the kind of mathematics instruction that has not worked for so many children - the rote memorization in which children are called upon to get the right answer in the shortest possible time with the least possible amount of thinking."

Herbert P. Ginsburg,
J acob H. Schiff Foundations Professor of Psychology and Education

Organized to rise above the ideological standoff, the $N$ ational Center for the Study of Privatization in Education at Teachers College serves as a non-partisan voice to sort out the issues and provide an objective perspective on the conflicting concerns surrounding privatization, according to its director, H enry M. Levin, William Heard K ilpatrick Professor of Economics and Education.

The Center plans to dissemination the results of its research on the W orld Wide W eb, through the media, and with the distribution of broadsheets to interested audiences.

## Big Math for Little Kids

Believing in the mathematical competence of preschoolers, particularly among low-income, minority children, H erbert P. Ginsburg, Joseph H. Schiff Foundations Professor of Psychology and Education, found in his research that four and five year olds are capable of complex and interesting mathematical thinking. Based on these findings, Professor

Ginsburg, together with colleagues at Boston U niversity and Johns H opkins University, developed teaching materials involving an exciting set of mathematics activities for preschoolers. "W e are now working in several day care centers in M anhattan," Professor Ginsburg said, "to design and test these materials, which we are calling "Big Math for Little K ids."

## A Distance Learning Partnership

In a commentary on technological connections to higher education, Arthur Levine, President of Teachers College, discussed the imperatives for partnership to advance distance learning. "Distance learning," President Levine observed, "study away from traditional campuses, is hardly a new idea. W hat is new today is the vast expansion of new providers and technologies with capacity to reach unimaginable numbers of potential students and the possibility of offering them customized education independent of the clock anywhere in the globe. The chances to serve a diverse clientele and the needs


Professor Herbert P. Ginsburg
of an increasingly knowledge-based economy have never been better. But, to do so, we need to recognize four dra matic forces driving long-distance learning and the risks they entail for colleges and universities. First, is the pressure to remain at the forefront of knowledge, requiring new technologies to power career-long education and the use of continuing education or professional development. Second, a changing demographic picture, focused primarily on working or part-time female students over 25 eager for convenience, service, quality and low cost. Third is cost, turning to technology as a vehicle to reduce the spiral ing cost of education. Finally, access to the Inter-
"All of us concerned about the quality of education in our public schools believe in high standards to improve student performance. It is self-defeating, however, to impose standards, as N ew York is doing, without providing the resources to implement them. The proper way to introduce new standards is to analyze the approaches necessary to achieve them and then work back to determine what that would cost and allocate the funding to phase in the qualifying examinations. Teachers need lead time for retraining to prepare students for the tests and students need a long time to prepare to take the tests. It is eminently unfair to prescribe tests for graduation without fulfilling the prescription."

## Gary Natriello, Professor of Sociology and Education

net now available in two out of five American homes. Now, at this moment of enormous opportunity, higher education must determinethe ground rules by which a partnership with the technology-based businesses can best be accomplished."

The Impact of a Northern Edu. cation on Southern blacks

Awarded an Andrew W. M ellon Foundation grant, Teachers College Professor Cally W aite and M argaret Crocco are exploring the role played by northern institutions "in the preparation of black scholars for educational and social leadership" from the sepa rate but equal decision of Plessy v. Ferguson in 1896 to the school desegreation ruling of Brown v. Board of Education in 1954. The research seeks to understand why students from the south came north for their educaton. W hat, the researchers ask, did they find in schools like Teachers College and $N$ ew York University and how did it influence their presence as leaders, faculty and administrators of historically black colleges and univer-


Professor Gary Natriello
sities. Between 1930 and 1960, for example, Teachers College awarded more doctoral degrees to graduates of black colleges than any other American college or university. Among the factors that attracted black graduate students north to Teachers College and others was the willingness of southern state government to fund graduate education rather than allowing them to enroll in state universities. M oreso, Teachers College offered innovative programs in social studies, educational administration, educational sociology, guidance and counseling not found in southern universities.

Techniques to Ward Off Abuse
As many as 75 to 80 percent of women with mental retardation are subject to sexual abuse and domestic violence, mostly from friends, relatives and caretakers. To address this problem, the Center for Opportunities and Outcomes at Teachers College and the Association for the Help of Retarded Children are testing and evaluating a curriculum to empower potential victims with prevention and intervention techniques to protect themselves against exploitation. Initially involving from 40 to 60 young women, the project is being carried out over a three-year period in Queens, Brooklyn and Manhattan, beginning with participation in role play, moving then to intervention activities and finally to a curriculum that teaches retarded women to become more effective decision makers in securing their own safety and well being. Once the curriculum is found to safeguard women from abuse, it is expected to serve as a model for replication elsewhere.

The Societal Power of Spirituality
I believe children are profoundly spiritual. It is an innate quality. If we can harness that spirituality and integrate it into the daily lives of youngsters, it can help shield them against the perils of substance use and abuse and depression.
We have found in research that adolescents with God-based spirituality are half as likely to use drugs and alcohol than others devoid of deep religious bearings. Schools can play an important role in the development of spirituality
without running afoul of constitutional prohibitions on religious practices in public places. Just as we learn of physical laws in the classroom so are there spiritual laws to be considered that relate to transcendental feelings of peace, beauty and artistry. We are now engaged in a study of how to introduce this sense of transcendence into the lives of adolescents from different denominations and even questionablehome environments. What we have learned is that these youngsters are eager to share their convictions about values, the sanctity of individuals and spirituality and do so with exquisitely articulated sentiments.

Lisa Miller, Assistant Professor of Psychology and Education

Funded by the Joseph P. K ennedy, Jr. Foundation, the project is staffed by Linda Hickson, Professor of Education and Director of the Center, principal investigator; Ishita K hemka, Project Director, and Gillian Will, Research Assistant.

## The Perils of High Stakes Testing

Gary Natriello, Professor of Sociology and Education, warned in a Community Service Society report that new standards requiring high school students to pass demanding Regents Competency Tests are setting up children for failure. Inner-city and rural schools, starved for funds and shortchanged in teacher competency, are simply unprepared to meet N ew York State goals, Professor N atriello added. In many communities that forecast has al ready been real ized with 50 to 70 percent of the children failing to meet the new standards.

In a follow-up seminar on the subject, Professor $N$ atriello estimated the initial costs for implementing the new standards at $\$ 3.5$ billion or \$5,678 a student. "Ideally," he noted, "we should have put the resources in place before the standards kicked in" with the dawn of the new millennium. Suggesting ways to improve the use of tests to benefit rather than undermine student aspirations, Professor N atriello called for research programs that examine how the consequences and assessment process affect individuals. A nother is to explore how the testing and assessment reflect the full range of human capabilities and to look at new way to understand human capacity outside of mainstream tests. Finally, he concluded, those who promote high stakes testing should be accountable for providing a proper


Lisa Miller, Assistant Professor of Psychology and Education.
anal ysis as well as the necessary educational opportunities to ensure student success.

## Comparing Teacher Educational Backgrounds

K aren Zumwalt, Professor of Education on the Evenden Foundation, and Gary Natriello, Professor of Sociology and Education, led a multi-year study comparing teachers with traditional teacher education preparation and teachers prepared in alternative, often short-term programs. The findings indicate the differences are not as clear-cut as some policy mak-


Penny Arnold, Peace Corps Associate
ers considered. W ithin several years, the study observes, alternative track teachers devel oped teaching philosophies not that dissimilar from their traditionally prepared colleagues.

## Health Education to Forestall Blindess

Researchers at Teachers College determined that health education programs can play a vital role in reducing the risk of vision loss among A fricanAmericans with diabetes. Charles E . Basch, Professor of H ealth Education, noted that dilated eye examinations can detect and treat diabetic eye disease early on before serious vision loss sets in. In a study involving 280 participants, 143 in the control group and 137 in the health education group, Professor Basch said, "we found that about twice as many people in the education group received timely eye examinations as compared with those who received standard
care." Citing the effectiveness of a health education program, Professor Basch added that "the results are dramatic and clearly demonstrate that health education can substantially increase the rates of dilated eye exams for people with diabetes (the only way to detect diabetic eye disease)."

## A Major Educational

 InfluenceEach of these research findings- along with other investigative projects conducted at Teachers College- has had or is destined to have a major influence on educational practice and policy. M ost of the ongoing research at Teachers College involves not only professors but al so students who learn under the mentorship of experienced and nationally renowned investigators how to explore and examine data, analyze and interpret findings, and present the material in a coherent and comprehensible fashion.

Preparing the Next
Generation of Leaders
Down through the decades of its more than 100-year history, Teachers College has both anticipated and acted on critical developments that paved the way for progress in all of education. This ability to foresee societal needs has led to fields of study that now are considered standard parts of education school fields of study. Educational administration. Early childhood education. Special education. Education of the gifted. Educational psychology. Sociology and education.

And, as new issues emerge, many of them deep-seated and difficult, Teachers College remains in the vanguard with creative ideas and solid information to address contemporary concerns. Nutrition education. Science education. Reform of educational systems. Urban education policy. Cross-cultural education.

It is against this background of enterprise that students at Teachers College develop the capacity for leadership in pursuing educational interests that parallel the real and abiding concerns of the society at large. And, in the course of their studies, students have the opportunity not only to absorb the elements of leadership but to engage in the exercise of leadership.

H ere are a number of programs that serve to prepare the next generation of leaders:

## Peace Corps Associates

Since 1985, more than 300 Peace Corps Fellows have graduated from the program and some 200 current students and fellows are now teaching in N ew York City public schools. The program offers former volunteers reduced tuition toward a master's degree and a permanent teaching certificate in exchange for a two-year teaching commitment.

In addition, a select group of program graduates become A ssociates whose role is to assist new fellows, some of whom are coming directly from their Peace Corps services and others who are changing careers. The assistance takes the form of monthly seminars


Bruce Lincoln, ILT M anager of Community Outreach
where such issues as certification, conflict resolution and new standards are discussed, sessions to orient new felIows to the Teachers College culture and help in the preparation of newsletters. According to Penny Arnold, one of the Associates, "I and others had a strong influence (on the fellows) because we talked about issues important to new teachers coming into New York City, including school reform, integrating the arts and employing students as leaders."

## Technological Connections

The Institute for Learning Technologies seeks to improve the educational experience of disadvantaged children by connecting an increasing number of K-12 schools in N ew York City to the Internet, developing new curricular strategies and providing professional development for teachers. In addition, ILT has advanced initiatives to bring interactive multimedia to schools and community-based organizations in U pper M anhattan and H arlem under the auspices of H arlem Renaissance 2001. A ccording to Bruce Lincoln, M anager of Community Outreach at TC's ILT, the H arlem project has developed a threepart strategy consisting of public access technology centers, a distance learning network and a computer loan program. Five state of-the art technology centers are being established at existing commu-


Naomi Hill, Professional Development School Director
nity-based organizations. The sixth is a large center to serve the entire U pper M anhattan Empowerment Zone community. Once the centers are operating, individuals can apply for a home computer with Internet access free of charge. A distance learning network is to provide basic access to e-mail, office productivity software, the Internet and desktop video conferencing as well as an Internet-integrated multimedia Iearning system.

The Professional Development SCHOOL

A coalition including Teachers College, Community School District 3 in M anhattan, the Alternative H igh School Division and the U nited Federation of Teachers, the Professional

## Preparation for the Changing American Workplace

"At the Institute for Education and the Economy, we investigate the ways in which schools prepare students for the changing American workplace. H ow can our educational institutions- including high schools and community colleges- best prepare our citizens for the continuously changing atmosphere that will face them as workers in the 21st C entury? This is a question that is paramount in the minds of policymakers, employers and educators. It is also the focus of our research, as we study some of the best links between the school and the workplace and disseminate news about the most productive programs to a wide audience."
Thomas R. Bailey, Professor of Economics and Education and Director, Institute for Education and the Economy

Development School (PDS) exposes teachers to the best pedagogic practices in outstanding classrooms. N ow in its 13th year, PDS has ratified its relationship with a charter that sets forth the shared understandings of the partnership to encourage classroom diversity, inquiry and school renewal and reform.

The new charter defines the PDS commitment to support preparation of teachers, ongoing professional development of experienced teachers, inquiry about teaching and refinement of teaching and schooling practices.

## Education and the Economy

 Teachers College students have a direct role in developing educational reforms to meet the changing dynamics of the workplace. W orking under the auspices of the Institute for Education and the Economy, graduate students are addressing such issues as on-the-job learning, school-to-work programs, and skill require-ments. The Institute, directed by Thomas R. Bailey, Professor of Economics and Education in the Department of International and Transcultural Studies, al so houses the Community College Research Center and funds fellowships for doctoral students to examine the role of community colleges in workforce and economic development. With workforce opportunities concentrated in service and scientific areas, where qualified applicants are in short supply, the role of education is crucial in meeting the demand for professionals with a strong background in independent thinking and skills training.

## Accelerated Schools Project

 The A ccelerated Schools Project is a comprehensive approach to school reform based on the idea that at-risk students thrive in an atmosphere of rigorous standards, exciting curriculum and high expectations. For example, student performance at P.S. 108, an East H arlem elementary

Professor Thomas R. Bailey
school where the project has been in place for more than five years, improved dramatically over that period, moving from twentieth to third out of 22 schools in the district. The school, with a predominantly H ispanic population and bilingual classes, sufficiently influenced $N$ ew J ersey representatives from School 27 in Paterson and Red Bank Upper Elementary Middle School in Red Bank to incorporate the project in their institutions. Referring to her visit, Mary Kildow, a School 27 supervisor
noted that "in the classrooms I have seen at School 108, the children are enthusiastic. They take responsibility for their own learning."

Inclusion Instead of Exclusion

M ost public school districts traditionally place students with behavior and learning disorders in segregated schools or classrooms. J oya Carter, Ph.D., new Minority Postdoctoral Fellow at Teachers College, disagrees. She favors inclusive education or heterogeneous ability grouping of students. No more special education programs. Her version of an ideal classroom is to welcome students with a wide variety of approaches to learning, absent any labels that identify particular learning problems. In that environment, Dr. Carter noted, "teachers should unpack the baggage stuffed with conventional learning practices and look to understand the


J oya Carter, Minority Postdoctoral Fellow
cultural reference points and ways of learning that students bring to a class. I'm challenging the construct of labels. We all have different learning styles and should regard differences as strengths not shortcomings." To promote an advantage out of difference, Dr. Carter said, inclusive classrooms need the support of several teachers working collaboratively with a focus on developing holistic learners. She said she had observed inclusion at work successfully in schools systems in Italy, New Zeal and and South Africa and believed it is time for the idea to find expanded acceptance in the U nited States.

Wide-Ranging Research Initiatives
E mployment I ssues for Single B Iack M others

Phyllis G yamfi, whose papers on employment issues raised by single black mothers have been highly praised in professional psychological circles, is embarked on a doctoral dissertation examining the transition single mothers are making from welfare to work and the impact on the transition on children's well-being. For papers she wrote and co-authored on issues associated with the employment of single black mothers and parental stress, Ms. Gyamfi received the "Outstanding Research Award" from the Society for Social W ork and


Phyllis Gyamfi
Research and won first place in the A merican Psychological Association's graduate research competition.

Teaching R forms in M ongolia Together with several of her colleagues from Teachers College, Gita Steiner-K hamsi, Associate Professor of Education, moderated five national oneweek workshops in M ongolia


Gita Steiner-Khamsi, Associate Professor of Education,

## Preparing Teachers for Reading Assignments

"As a Rose Fellow, I interned at the Reading Reform Foundation whose mission is to train urban schoolsteachers and students in undergraduate education programs to provide exciting approaches in how reading istaught. I have observed kindergarten and first-grade classooms, watching how reading instruction takes place to evaluate the effectiveness of various methologies. I plan to incorporate my impressions and insights from this on-site experience in my master's project on how best to prepare teachers for reading assignments in the public schools."

Christine Werthmann, candidate for Ed.M. in Reading and Learning Disabilities


Keoung-hye Seo
that offered ways to revise teaching strategies, initiate cooperative learning and examine compatible assessment and testing methods. The project, included in every region of M ongolia comprising a total of 72 secondary schools, was initiated to give teachers the opportunity to develop new curricula and establish new assessment methods. "There is al ways a danger in international education projects," commented Professor Steiner-K hamsi, "that you just go there and teach what you teach here"
without being sensitive to cultural factors endemic to M ongolia. "We want the M ongolian stakeholders to drive reform," she added.

The $M$ eaning of $M$ athematical Symbols
K eoung-hye Seo received a Spencer Dissertation Grant providing a full oneyear fellowship in support of her doctoral studies in examining what first grade students understand about mathematical symbols. In her dissertation studies, M s. Seo hopes to develop insights into the meanings that children give to mathematical symbols in order to better understand mathematical concepts.

A Case Study of Teacher D evelopment Frances Schoonmaker, A ssociate Professor of Education in the D epartment of Curriculum and Teaching, was awarded the Tenured Faculty Research Fellowship for the year 2000-2001 for her proposal, "Promise and Possibility: Learning to Teach." H er research centers largely on the development of one teacher,


Christine Werthmann, Ed.M. candidate

K ay, from the time she entered the preservice program in Childhood Education until the end of her sixth year of classroom teaching. In this in-depth study, Professor Schoonmaker is exploring such issues as how beginning teachers reconstruct knowledge in their development as teachers and the impact of deliberation and leadership, two of the characteristics emphasized in the preservice program.

## Student Teaching and INTERNSHIPS

Preservice students are required to spend one or two terms engaged as student teachers in selected elementary schools, junior and senior high schools, and in special education settings as an integral part of their degree requirements. Other practica and internship opportunities are avail able. For example, as interns, students can be employed as assistant teachers in day-care centers, nursery schools, elementary schools, or middle schools. Students who are experienced teachers can be employed to assist departmental faculty in supervising and coordinating student teaching placements and internships. Departments that offer doctoral degrees can place candidates in internships in colleges and universities, including junior and community colleges at research facilities, in public and independent schools and in other settings. This range of experiences, a connecting link between theory and practice, provides a foundation in education that serves as a stepping stone to leadership.

An Expansive View of the Arts Teachers College embraces a full sweep of the cultural side of education with programs in the arts, music and dance. The programs include Art and Art Education, Arts Administration, Dance and Dance Educa-


J udith M. Burton, Professor of Art Education
tion and Music and Music Education. "W e present a considerable force in the College," acknowledged Judith Burton, Professor of Art Education, "with more than 400 students enrolled in one of the four programs."

A critical component of the programs is preparation of students for teaching positions in public and private schools and higher education institutions, supervisory posts in the arts, museum administration and gallery management. This aspect of the programs is matched by a strong studio presence in art, music and dance with exhibitions of paintings, recitals and concerts.

The Center for Research in Arts Education, the research arm of the arts programs, published a recent report
on the transfer of learning in the arts to other disciplines. For its work in the field, the Center received the M anuel Barkan M emorial Award for the best research and writing in arts education.

Professor Burton noted that members of the arts programs at Teachers College have been instrumental in establishing and staffing the $H$ eritage School, a public school in New York City designed to integrate a broadbased arts dimension as part of a comprehensive curriculum. The School also includes an extended day program to ensure participation in the visual arts, music and theater. Supported by federal, city, College and foundation funding, the School is a model for replication as a community learning center.

The College is also the venue for the Macy Art Gallery that not only features student and faculty works but that of prominent artists including a public show of the works of Cristo and J eanne Claude who gave the gallery 24 original pieces of art.

The Klingenstein Center Selected on the basis of a national competition to identify leadership potential among independent school teachers, K lingenstein Fellows receive full tuition and living stipends to spend an entire academic year in residence at Teachers College and other graduate schools of Columbia University.

As Fellows, students pursue individual research projects and meet in intensive seminars designed to increase their knowledge of current issues confronting both public and private schools in the United States. In an evaluation of the 1,200 participants in the program since 1977, an astounding 96 percent ranked the experience as outstanding, serving as the foundation for realizing leadership roles as teachers and administrators in independent schools.

## Issues of Thinking and Doing

 in Test TakingJames E. Purpura, A ssistant Professor of Language and Education, has received the International Language Testing Association Award for the


J ames E. Purpura, Assistant Professor of Language and Education
"Best Paper Published in Language Testing" entitled "An Analysis of the Relationships Between Test Takers' Cognitive and $M$ etacognitive Strategy Use and Second Language Test Performance." In developing his paper, Professor Purpura surveyed 1,660 high school students in 17 centers all over Turkey, the Czech Republic and Spain, analyzing "the relationships between what people said they did and how they actually performed. I used a statistical technique- structural equation modeling - that allowed meto look at a number of variables and their effect on performance.
"Everybody uses metacognitive strategies, meaning everybody thinks. The problem is when people think and don't do or when people
do and don't think. Or, when people think and do but they are thinking and doing the wrong things. All of this is logical but I've shown it by looking at these different relationships." In applying his research findings, Professor Purpura said he is "interested in the patterns of behavior of large numbers of people. For example, in a school, if you see test scores are poor maybe it's because the strategies used in these tests were not the most effective. I believe you can actually train students to be more strategic in the way they approach a test."

## Insights in Covering Education Issues

"T he H echinger Institute, as its main activity, offers seminars for working journalists to help them deepen their knowledge and understanding of education issues. These are times when education has risen to the top of the nation's political agenda. Journalists involved in the coverage of schools and colleges must be able to cope with complex topics that are often fraught with controversy. Journalistsfrequently have to carry out this demanding work under deadline pressures. Thus, in an academic setting- absent the daily grind- journalists who attend Hechinger seminars are able to take a refreshing and intellectually rewarding break during which they can reflect on their past work and plan for the future."

Gene I. Maeroff Director, The Hechinger Institute on Education and the Media

Education for Current Leaders/Development of Educational Discourse

Dialogue Interaction. Outreach. Innovation. Teachers Coll lege engages in the full array of techniques to promote and provoke a spirited exchange of points of view to improve, inform, and reform the state of education.

## Center for Educational

 Outreach and InnovationA central player in establishing forums where the competition for good ideas flourish, the Center for Educational Outreach and Innovation (CEO\&I) is engaged in a number of creative initiatives in distance learning, including Web-based certificate programs; leadership programs; public lectures; symposia, and debates.

## Hechinger Institute on Education and the Media

The heart of the Institute's agenda are seminars for working journalists designed to help them improve their
coverage of educational issues with a better understanding of educational policy and practice.

The sessions scheduled in 2001 include:

- Seminar on The Connection Between Leadership and School Improvement.
- Seminar on Education for Editorial Writers.
- Seminar for Reporters N ew to the K-12 Education Beat.
- Seminar on W hat's W rong with High Schools- and How to Fix It.
- Seminar on Student Life in Higher Education.
- Seminar for Education Editors and Supervisors.
The seminar sessions, according to Gene I. Mareoff, Director of the Institute, "have played a crucial role in the professional development of journalists covering a wide range of issues in education. In turn, education has been helped as well, benefiting


Gene I. M aeroff
from more informed coverage and a better informed public."

Together with the N ational Center for Public Policy and Higher Education and the Institute for Educational Leadership, the H echinger Institute published The Learning C onnetion, a book with 12 case histories on how public schools and colleges can overcome "a profound disjuncture and continuing cultural, political and institutional chasm between K-12 and higher education."

## Concerns for Justice and Wisdom

"We keep asking: H ow can we get kidsto learn more? H ow can we get all students to meet new, high academic standards? T hose aren't bad questions, but they don't go far enough. I think we should be asking: H ow can we raise and educate our children better?W hen you ask that question, you think of all the ways we want our children to grow, morally and emotionally, as well as mentally. H istori cally, school s have concerned themselves with making kids good as well as making them smart. I think we have to get back to some of that. M ost families want their children to be competent, wise and just. The current reform movement in education emphasizes competence. I favor competence, not incompetence, but I think we ought also to be concerned about instilling a sense of justice and a measure of wisdom in the kids we teach."
Thomas Sobol, Christian A. Johnson Professor of Outstanding Educational Practice

## Preparation for School <br> Leadership

The dearth of qualified candidates to fill a growing number of vacancies in school principalships prompted the formation of the Future School Administrators A cademy to increase the size and quality of the leadership pool for the Putnam/N orthern W estchester school districts.

Organized by Teachers College and Putnam/N orthern W estchester Board of Cooperative Educational Services, the A cademy offers teachers the opportunity to obtain N ew York state certification as a school district administrator in a two-year, parttime program. Thomas Sobol, Christian A. Johnson Professor of Outstanding Education Practice at Teachers College, and Renee Gargano, Deputy Superintendent of the Putnam/N orthern W estchester BOCES, co-direct the A cademy.

According to Professor Sobol, "a number of factors have come together
to make it more difficult to recruit and retain school district administrators. These include higher salaries for teachers, increased accountability, longer hours, a longer year and high stakes testing, where one flagging performance by a school's students can cost a principal a job and early retirement."

To overcome these obstacles and develop greater leadership potential, the A cademy's goals for its participants are to: develop an ability to lead and manage schools as purposeful, effective, humane organizations; provide the theoretical and management practical skills to lead in an increasingly diverse and technological society; broaden and deepen understanding of values, trends and issues that affect schools, and instill a culture of reflective practice, acquiring and maintaining the habit of continuous learning and mutual support.

Providing a blend of theory and


Professor Thomas Sobol leading a seminar on public school reform issues.
practice, the A cademy serves teachers in their home districts while, Professor Sobol noted, vigorously "identifying people who are capable teachers who also have a strong aptitude and interest for the principalship."

## A Collaborative Initiative With China

The Center on Chinese Education represents a forum for collaborative research between faculty members from Teachers College and Peking University of China and to share educational ideas and experiences between educators in the U nited States and in

China. Established in July, 2000, the Center received grants of $\$ 525,000$ from the $H$ enry Luce Foundation for organizational and operational activities, $\$ 110,000$ from the Ford Foundation for China-based research and scholarship support from the Crosson Finance Company.

The research and development initia tives sponsored by the Center focus on such projects as the financing of compulsory education in China, privatiza tion and choice in education,

W eb-based teaching of college English in China and school reform in Hong K ong. In promoting U.S.-China education exchange, the Center activities include workshops and seminars at Teachers College and at such collaborating institutions in China as Peking University, Bejiing N ormal University, Shanghai A cademy of Educational Research and Chinese University of H ong K ong.

The Crosson Scholarships provide support for Chinese students for graduate study at Teachers College. Recruited from applicants who work in the education department or bureau in a poor area of China, the scholarship students are expected to return to work in China.
"Facilitating educational exchange between the U.S. and China," noted Education Professor Mun C. Tsang, "is part of a larger effort towards a constructive and engaged relationship between the two countries that is important for world peace and prosperity."


Education Professor Mun C. Tsang

## Lecture Series on Critical Issues in Education

The on-going dial ogue at Teachers College is enlivened by a recent series of campus lectures featuring such distinguished speakers as educator and comedian Bill Cosby, UCLA Professor Amy Stuart Wells, University of California Professor Bernard Gifford, N ew York City Schools Chancellor H arold O. Levy and former United States Secretary of Education Richard Riley.

TheM arx Lecture
Delivering the Virginia and Leonard Marx Lecture, Bill Cosby spoke to a capacity audience of 2,000 at the Riverside Church in an address laced with humor, memories and serious commentary about teachers, student diets and the often atrocious conditions teachers endure in the attempt to educate. H is reverence for the teaching profession was captured in such remarks as "I don't think there is one person here who doesn't have a teacher in mind and the name of the person who made you do your work and kept saying you can."

His disgust at the dismal learning environments found in too many schools was evident in his comments that it is insulting to grade teachers on their performance when there are no lights or windows in the classrooms or books to teach with. "H ow dare they give you no books and say 'teach and we are going to grade you,'" he added. Mr. Cosby challenged those in the audience who teach "to real ize who you are and stop the system from grading you until someone begins to grade the system."

TheSachs Lectures
Amy Stuart W ells, Professor of Educa tional Policy at UCLA, delivered three lectures as the Julius and R osa Sachs Lecturer on issues of charter schools, citizen control and educational equity.

A Ph.D. in Sociology and Education from Teachers College, Dr. Stuart Wells lectured on "In Search of the Uncommon Schools: Charter School Reform in Historical Perspective," "Local versus Community Control in Education: Distinctions of Race, Class and Power," and "Lessons from the Free M arket Reforms of the 1990s: The N eed to Bring Equity Back into Educational Policy Debates."

In her opening lecture, she questioned the support many Americans purportedly have for the common school as a forum where children from different backgrounds come together and interact in a public space. "My work
has shown the tendency has not really been toward the common schools, in large part because of race and also class." That is, she added, "parents like the schools because they were racially diverse. But, at the same time, they wanted separation within, they wanted tracks, they didn't want their kids necessarily in classes with lower-tracked children. So they wanted what I call 'diversity at a distance.'"

In her second lecture, she characterized local control as favored by those with social, economic and political power while community control was linked to the less advantaged who had little power in the educational system. W hat might serve to ameliorate this divergence, Dr. Stuart W ells advanced, is to "call on the federal government to play a powerful role in redistributing educational resources and opportunities to those who have the least while al lowing local communitiesparticularly those that have been the least well served in the public educational system - to have more control over how those resources are spent and what students are taught."

In her final lecture, Dr. Stuart W ells deplored the impact of "a neo-liberal, free market ideology that, in the last decade in particular, seems to have reshaped our understanding of what is politically possible." It is an approach, she maintained, that favors private forprofit and non-profit firms to run
schools and initiatives to weaken teachers unions. "Thus," Dr. Stuart Wells insisted, to neo-liberals, a free and universal system with unionized employees with benefit packages represents the incredibly expensive welfare state that competitive societies can no longer maintain." If, Dr. Stuart Wells concluded, we want the public schools to reflect the nation's democra tic nature rather than its capitalist nature, "we need to rethink the political possibilities for making publicly funded schools sites of true democratic discourse and deliberation.

## TheInaugural Sussman Lecture

Bernard R. Gifford, the first Sussman Visiting Professor of Education, focused his inaugural lecture on the use of technology "to increase educational opportunities for students who are not well served within conventially organized classroom settings." The challenge, he said, "is to use technology in such a way that the quality of the instruction is not diminished as a function of location.


Professor Bernard R. Gifford

A professor in the Division of Education, M athematics, Science, Engineering and Technology at the University of California at Berkeley, Dr. Gifford noted that "higher education institutions have not been very successful in integrating technology into their teaching and learning." Alleging that institutions are "resistant to change, Dr. Gifford said the answer is faculty information-sharing and knowledge-building communities of practice "within which faculty and academic technologists are provided the means, materials and encouragement to pose questions, raise problems, offer solutions, construct answers and discuss the changes Internet and W eb technologies will cause in canonical instructional settings."

Regarding Teachers College, he said "I would like to see Teachers College become a place where the conversation about...technology cuts across all of the disciplines and where the conversations are not bounded by conventions...but compelled by the possibilities."

The lecture and the Sussman Visiting Professorship have been endowed by Teachers College Trustee Laurie Tisch Sussman whose foundation support efforts in the arts and education to improve the quality of life in $N$ ew York.
$N$ ational C onference on Educational Leadeship
L eaders C ount, the Educational Initiative of the W allace-Reader's Digest Funds, sponsored a "N ational Conference on Educational Leadership" that addressed the lack of qualified school superintendents and principals in the public schools. M. Christine DeVita, President of the Funds, noted that the Initiative tried to facilitate changes in districts and come up with "possible pathways to solutions" for teachers, principals and superintendents to travel. Teachers College President Arthur Levine chal lenged the participants, professional associations, scholars, philanthropic communities, and the press to "change education like our predecessors did for medicine."

H arold O. Levy, Chancellor of New York City Schools, noted that the task of leadership is "more art than science," explaining that having facilities in working order gives teachers, princi pals and superintendents the right environment to do their jobs. He also wants to eval uate superintendents and pinpoint problem areas in the school


Harold O. Levy, Chancellor of New York City Schools
system. W hile applauding those teachers who "perform miracles every day," Chancellor Levy acknowledged there are others who need to be weeded out of the system. Citing professional development as a critical aspect to keep ideas fresh and excitement levels high, he said "the most important thing we can do is build up the quality of the teaching staff and keep them. The tools are there to recruit the best and they don't come cheap."

Richard W. Riley, U.S. Secretary of Education at the time of the Conference, said among the steps taken by the federal government to maintain the best leadership in the schools is a \$40 million School Leadership Institution to train as many as 10,000 current or prospective administrators. A nother initiative is the N ational Board for Professional Teaching Standards, a voluntary system to award teachers certified in the process with $\$ 5,000$ to $\$ 10,000$ salary supple ments. The system is expected to eventually cover principals and superintendents.

## Teachers College Professors Named Carnegie Scholars

Jay H eubert, Associate Professor of Education and Law, and Dorothy Shipps, A ssistant Professor of Educa tion, are among the first class of 12 Carnegie Scholars to receive a total of $\$ 1.1$ million to support innovative scholarship and policy-focused research in education, international


Richard W. Riley, Former U.S. Secretary of Education
development, democracy and international peace and security.

Professor H eubert's research deals with developing empirical evidence to assess the positive and negative effects of high stakes tests on the learning and life changes of K-12 students, particularly those of color, with limited English proficiency, with disabilities and in a low socioeconomic status. Once the impact of the tests is identified, his research will explore how the high stakes tests are used to help ele vate the life changes of children.

In Professor Shipps' work, she is looking at the changes in schools necessary to meet the special needs of disadvantaged children and at the civic capacity to generate and sustain reforms in an urban center influenced by big-city politics. U sing Chicago as a case study, her project seeks to explore how urban school reformers view their own strategies and help erode the wall between educators and their civic partners to effect lasting reforms.
"M y colleagues and I in the Reading and Writing Project believe passionately that, if we, as teachers, are going to create conditions which help children outgrow themsel ves as readers, writers and learners, those same conditions need to exist for us as teachers. The Project gives us the study groups, think-tanks, writing workshops and research labs that help us to hold onto our dreams for what schools can be."

## Lucy McCormick Calkins,

 Director, Reading and Writing Project and Professor of English EducationImprovement of Practice
Teachers College faculty members and students do not spend all of their time within the confines of College buildings. They are in the schools, colleges, businesses, psychological centers and community centers of N ew York City and the nation-advising on ways to turn new ideas of scholarship into better methods of practice. The changing of practice has been a hallmark of the College since its founding, when a few people saw the need to prepare a new kind of teacher for the immigrant children who were then arriving in New York City.

Today, much of the College's outreach work is initiated by its many centers and institutes. Here are a few examples:

Two national centers associated with Teachers College received $\$ 1.1$ million from the G oldman Sachs Foundation to improve the capacity of N ew York public schools to recruit and retain qual ity teachers and to scal e down the size of high schools to enhance a greater level of engage-
ment between students and faculty.
The funding went to the National Center for Restructuring Schools and Teachers (NCREST) at Teachers College and the $N$ ational Commission on Teaching and A merica's Future (NCTAF). The premise galvanizing their work stems from two strategies: investments in teacher qual ity that ensure that all students have access to well prepared and knowledgeable teachers, and efforts to redesign schools so that they are more personalized, more focused on student needs, more thoughtful in their curriculum and more supportive of good teaching.


J acqueline Ancess \& Dr. Fred Frelow


Professor Lucy McCormick Calkins
NCREST and NCTAF are identifying strategies to recruit and retain quality teachers with the support of the $N$ ew York City Board of Education, the U nited Federation of Teachers, the business community, policy-makers and others with a stake in the education system. The downsizing aspect of the project is to redesign schools to function as smaller entities in the range of 300 to 500 students.

To incorporate the two strategies, according to J acqueline Ancess, Associate Director of N CREST, "we connected three G oldman Sachs Institutes for Redesign, Teaching and Leadership with three mature small

Tracking Intractable Conflicts
Progress has been made to resolve conflicts where common ground can be reached by cooperation between the parties The more difficult are intractable conflicts that arise when the positions of the parties are polarized. Seemingly nonnegotiable, intractable conflicts are imbedded, for example, in the religious-dominated Israel-Palestinian standoff, the demonizing that infect pro-choice and pro-life postures and the entrenched moral constructs that separate the Christian right from progressives in political life. Techniques to resolve intractable conflicts remain limited so we have to look to a dialogue process that addresses the need to be heard, respected and appreciated to draw warring factionstogether.

Peter T. Coleman, Assistant Professor and Director of the International Center for Cooperation and Conflict Resolution.
schools in N ew York— the U rban A cademy, International High School and Middle School - to serve as the network hubs of each of five newer small schools." Each of the lead schools is to strive to get "people to reflect on what it is they want to do and how they are going to do it," Ms. Ancess added.
"The small school model," noted Dr. Fred Frelow, former Director of N ational Programs for NCTAF, "affords a greater level of engagement between students and teachers, creating a more focused learning environment. The support from Goldman Sachs will enable the three schools to take what they've learned and help 15 more schools design successful learning communities."

Theory and practice merges as interrelated strengths in the newly published H andbook of C onflict Resolution edited by M orton Deutsch, the Edward Lee Thorndike Professor
Emeritus of Psychology and Education


Peter T. Coleman
and Peter T. Coleman, Assistant Professor and Director of the International Center for Cooperation and Conflict Resolution.

Discussing the H andbook, Professor Deutsch said: "I hope it will influence a wide variety of people who are interested in conflict— students as well as practitioners- so they start to understand the range of issues that are involved." Two key issues he cited were cooperation and competition. "It turns out that a constructive process of conflict resolution is like a cooperative group process," he added, pinpointing openness and honesty and interest in each other's well being "as characteristic of the cooper-
ative situations (that) help a conflict take a constructive course."

In a competitive situations, Professor Deutsch noted, the parties employ harm, misinformation and an empha sis on differences that lead conflict on a destructive course. The key ideas in the conflict resolution movement, he said, is working together "cooperatively to try to come to some mutual outcome" for both parties.

The Teachers College Reading and Writing Project is an internationally renowned coalition of teachers, teacher-educators and writers. For almost two decades, the Project has helped teachers in hundreds of schools establish writing and reading workshops in which children pursue projects they care about and in which teachers act as coaches and mentors. The mentorship component has been augmented to connect reading specialists and support personnel from Teachers College with classrooms in five schools to improve the reading abilities of students in

## New Possibilities with Digital Technologies

"As educators experience changes in the communi cations constraints, they understand that digital technologies open the existing educational system to new possibilities, Educators are determining what emergesthrough the social construction of digital learning communities. Educational structures from kindergarten through graduate schools and adult education are wrenching open to change; but the course that change can and should take must be determined through the interplay of effort by many different groups."

Robert O. McClintock, John L. and Sue Ann Weinberg Chair in Historical and Philosophical Foundations of Education
grades K to 8. The mentor schools al so serve as test sites to measure teacher development, watching for progress and alert to regression.

Researchers from the Institute on Education and the Economy are al so traveling the nation, taking close-up looks at school programs that ease the transition from school to work. Led by Thomas Bailey, Professor of Economics and Education, the Institute's researchers (most of them Teachers College students) are working to discover what these programs have in common so that they can share those commonalities of success with other school leaders. Part of the Institute on Education and the Economy is the Community College Research Center (CCRC), established by a grant from the Alfred P. Sloan Foundation, which will link administrators from community colleges with researchers who deal with issues regarding the promise of these important American institutions.

CCRC will al so work to foster more research about community colleges, institutions that too often have been overl ooked. It is one example of how
the College is building on its past greatness. For example, in the 1960s and 1970s, another Teachers College Center on Community Colleges prepared hundreds of administrators for those institutions; the College will use its relationship with its alumni, who lead community college systems from N ew York to Cal ifornia, in creating this new center for research.

Under the direction of J eanne BrooksGunn, Virginia and Leonard M arx Professor of Child and Parent Development and Education, The Center for Young Children and Families conducts a wide range of interdisciplinary studies and provides training for those who will make policy involving children and families. The A dolescent Study Program is now involved in a major four-year project measuring the social and emotional development of girls. M ore than 200 families are involved in the research project, which will lead to a greater understanding of parenting behaviors, racial and ethnic socializa tion, identity development, school achievement and other aspects of growing up female.


Professor Robert O. McClintock

The Institute for Learning Technologies (ILT), directed by R obert O. McClintock, draws together researchers not only from Teachers College but al so from the Columbia University community as a whole to study ways in which technology can be used to improve education. ILT is committed to expanding the scope of educational attainment by making extensive resources readily available to institutions ranging from pre-kindergarten through higher education. One recent ILT project has allowed elementaryschool students in H arlem to link up technologically with "friends" at other schools around the nation to share ideas about school projects and other areas of interest. One boy in H arlem, for
example, co-authored a report with another boy about their mutual hero, J ohn Paul J ones, even though the other boy was in Ohio.

The Institute for Urban and Minority Education (IUME), is sharing a $\$ 400,000$ grant with the U niversity of Colorado from the M etropolitan Life Foundation to help address problems of youth violence. U nder the grant, IUME is creating models of anti-violence programs drawn from successful results of communi-ty- and school-based initiatives for national distribution. A ccording to Erwin Flaxman, IUME director, the metropolitan grant makes it possible to transform research findings into policy decisions and anti-violence programs.

The Leta Hollingw orth Center for the Study and Education of the Gifted provides support services for schools and organizations that are concerned with the special needs of gifted and talented youngsters. The Center continues the work of Project Synergy with preschool children in public daycare centers in Central H arlem. M ost of the Synergy work, which identifies and supports gifted youngsters from di sadvantaged backgrounds and their families, is co-directed by J ames Borland, Associate Professor of Education and Chair of the Department of Curriculum and

Teaching, and Lisa R. Wright, Director of the Hollingworth Center and Adjunct Assistant Professor of Education.

## The Link Between Theory and Practice

W hether anal yzing the special needs of adolescent girls, enriching the educa tional lives of disadvantaged but gifted children, or helping to replicate programs that best prepare high school students for the world of work, Teachers College institutes and centers are changing practice and policy on a local, state and national level. Faculty members and researchers are devoted to the idea that our research is not meant to be read only by a small audience of other researchers but by the wider audience of teachers, administrators and other professionals who will put the results of the research into practice.

The link between theory and practice at Teachers College is also enhanced by the fact that so many of our students work - either as interns or as full-time professionals- in schools, clinics, and other organizations around $N$ ew York City during the day, while taking their classes at Teachers College in the late afternoons and evenings. These students bring practice into the classroom, discussing with their professors the challenges they have faced on the job and keeping the classroom interchange grounded in the reality of practice.

The Adjunct Faculty Role Teachers Col lege's adjunct faculty members play a significant role in bringing the real ity of practice into our classrooms and seminars. Examples illustrate their involvement. James J. Shields, former Chair of the Department of Social and Psychological Functions and Director of the School Administration Program at City College, City University of New York, presented a course in "International Planning in International Educational Development." As a Teachers College visiting professor, he is Director of Sasakawa Y oung Leaders Fellowships Fund providing professional development workshops under the auspices of the Center for Educational Outreach \& Innovation.

Robert E. Fullilove, Associate Dean for Minority Affairs at the Columbia University School of Public H ealth and a leading researcher on AIDS education, regularly teaches a course on community approaches to prevent HIV infections. A graduate of Teachers College,

J ames J. Shields


Dr. Fullilove discusses his own experiences as he works to disseminate information about the disease in minority communities in N ew York City.

Howard Gruber, Adjunct Professor of Psychology and Education, teaches a course on the "Development of Cre ativity" at Teachers College. Based on his book Creative P eople at W ork, Professor Gruber is interested in exploring how the creative work of individuals develops and how it rel ates to the work of others. Professor Gruber's 1974 case study of D arwin on Man: A Psychological Study of Scientific Creativity was cited in the N ovember-December, 1999 issue of American Scientist as one of the most important science books of the century. His focus on the thinking process that underlies creative writing has been a recurring theme in his subsequent publications and teaching.
$N$ anette A. K ramer, one of the leading experts on the psychological problems of the aging population, is an adjunct associate professor of psychology and education. She has received grants totaling some $\$ 500,000$ to evaluate techniques for helping the elderly, including patients with severe dementia. Teachers College students work with her on these evaluations, learning about psychol ogical interventions in the real world of nursing homes and other residencies for older people.


Teachers College and New York City

The multicultural, urban environment that is New York City informs al most everything that Teachers College does. Teacher-education students do practicums in the $N$ ew York City public schools. Researchers are involved in projects in more than 200 of those schools. Social and organizational psychology students work as interns in businesses from W all Street to Midtown. Counseling psychology students work in counseling centers and schools across the urban landscape. Arts education students are interns at museums, galleries and arts organizations.

The linkages between Teachers College and $N$ ew York public schools provide yet other opportunities for students to have an impact on the educational destinies of youngsters.

Under the $N$ eff Tutorial Program, established by J ames $N$ eff, a retired bank official, three Teachers College students named $N$ eff Fellows are working with elementary school pupils to improve their reading skills. The N eff Fellows, Carolyn Choi, Amy W olf and Barbara Iverson, master's degree candidates in the Reading Specialist Program, see groups of two to three children in the second and third grades for four 45-minute sessions per week. "W hat strikes me," Carolyn Choi said


Neff Fellow Carolyn Choi works with students at PS 6.
reflecting the sentiments of all three, "is the individual time that I've been able to devote to children at risk."

Angel Alexander, a candidate for a master's degree in science education, is also volunteering at a homeless shelter teaching science to children in after-school science time. A graduate of the U niversity of Pennsylvania with a double maj or in biology and A frican-A merican studies, Angela moved from medicine into teaching after being appalled by the sorry state of high school education she experienced as a volunteer in Philadel phia. That transformation brought her to Teachers College where she is "devel oping into a wellrounded educator, one who will not conform to the traditional didactic teaching methods, but effectively
prepare students for the new millennium by enriching their critical thinking skills."

Beyond their practical experiences, Teachers College students can al so take advantage of courses offered at one of the world's most prestigious universities by signing up for courses in other divisions of Columbia University. They can al so take courses at other institutions in the area, including Union Theological Seminary and Jewish Theol ogical Seminary.

N ew York City also offers a weal th of informal educational opportunities. Students can take advantage of the theaters, museums, concerts, lectures and discussion groups. The College is located in M orningside Heights, a section of $M$ anhattan that has a long
tradition of intellectual excellence. The neighborhood is also one of the safest in N ew York City, and the streets are usually filled with residents and tourists, browsing through the bookstores and visiting historic and architectural wonders such as the Cathedral of St. J ohn the Divine, Riverside Church and Grant's Tomb.

## No Ivory Towers

W hat makes Teachers College different from other graduate schools? Its location in the heart of the major urban center in America and its close contact with the institutions of New York City give the College vibrancy. The wide ranging expertise of the College's faculty offers students a plethora of phil osophies from which each student can form a personal point-of-view. And, especially, the interplay between theory and practice, between the world of the mind and the world of real work with real people, children, adolescents and adults, makes Teachers College the one of-a kind institution that it is. And each graduate of Teachers College becomes a one of-a-kind leader-the kind of leader institutions of our nation and our world need today.



## Academic and <br> Educational Services

38 Academic Calendar
41 Research and Services Activities
53 The Milbank Memorial Library
55 Computing and Information Services

56 Instruction and Research Support Services

58 Teacher Education Programs and Internships

61 Research Fellow ships
61 Student Life and Student Services

## AUTUMN TERM 2001 (September 5 - December 21)

| September | 2 | Sunday. Beginning of occupancy in Teachers College residence halls for new students attending the Autumn Term. |
| :---: | :---: | :---: |
|  | 3 | M onday. Labor Day. University H oliday. |
| September | 4 | Tuesday. In-person registration for A utumn Term. N ew international students report to the Student Life Center. H ours: 10 a.m. to 8 p.m. Orientation Program, H orace $M$ ann auditorium, 8:30 a.m.-5:00 p.m. |
|  | 4 | Tuesday. Last day to file, in the Registrar's Office, M aster's essays for October 17 degree award. |
|  | 5 | W ednesday. Classes begin. Autumn Term 2001. |
|  | 5-7 | W ednesday-Friday. Registration and add/drop period. H ours: 9:30 a.m. to 6:00 p.m. W ednesday and Thursday; 9:30 a.m.-5:00 p.m. Friday. Advisors and/or their representatives avail able from 3 to 5 p.m. |
|  | 7 | Friday. Last day to file notification in Office of Doctoral Studies of intention to defend Ed.D. and Ph.D. dissertations during the Autumn Term 2001. |
|  | 7 | Friday. Last day to file application for Doctoral Certification Examination (Ed.D./Ph.D.) to be given October 19 and October 26. |
|  | 18 | Tuesday. Last day to add and drop courses for the A utumn 2001 term, file a Certificate of Equival ency, and enroll in Student $H$ ealth Service and Student Medical Insurance programs. |
|  | 19 | W ednesday. Requests for late registration under exceptional circumstances on or after this date require Registrar's approval and payment of $\$ 100$ late registration fee. |
|  | 28 | Friday. Last day to deposit Ed.D. dissertation and abstracts, which have been corrected in accordance with Dissertation Secretary's evaluation, and pay microfilm fee for October 17 award of degree. |
| October | 2 | Tuesday. Last day to change points in variable point courses. |
|  | 12 | Friday. Last day to deposit Ph.D. dissertation with the Office of Doctoral Studies and the Graduate School of Arts and Sciences for the award of the October degree. |

17 W ednesday. Award of October degrees and certificates. No ceremony.

18 Thursday. Midterm date, Autumn Term 2001.

19 Friday. Doctoral Certification Examination (Ed.D./Ph.D.) for students not majoring in an area of psychology. H ours: 9 a.m. to 12 noon and 1:45 to 4:45 p.m.

26 Friday. Doctoral Certification Examination (Ed.D./Ph.D.) for all students majoring in an area of psychology. H ours: 9 a.m. to 12 noon and 1:45 to 4:45 p.m.

31 W ednesday. Last day to file or to renew an application, in the R egistrar's Office, for $M$ aster's degrees and certificates to be awarded in February. (After this date, application may be filed only until $N$ ovember 14 upon payment of $\$ 15$ late fee.)

31 W ednesday. Priority deadline for submission of financial aid applications for scholarship and need-based aid for enrollment periods beginning with the Spring Term 2002. See Student Aid for further details.

N ovember 1-21 Thursday-W ednesday. All Ioan recipients who will complete degree requirements during Autumn Term 2001 must schedule a loan exit interview with the Office of Student Aid.

21 W ednesday. No Classes. Offices open.
22-25 Thursday-Sunday. Thanksgiving H olidays.
December 3 M onday. Financial aid applications for 2002-2003 become avail lable in the Office of Student Aid.

3 M onday. Last day to file, in Registrar's Office, M aster's degree essays for February degree award.

3 M onday. Registration for the Spring term for continuing students via web and touch-tone begins.

21 Friday. Autumn Term 2001 ends.
22 Saturday. Termination of occupancy in Teachers College residence halls for Autumn Term students not returning for Spring Term 2002.

## SPRING TERM 2002 (J anuary 23-May 14)

J anuary 20 Sunday. Beginning of occupancy in the Teachers College residence halls for the Spring Term.

21 M onday. Martin Luther K ing, Jr. Day Observed. University H oliday.

22 Tuesday. Registration for Spring Term 2002. N ew international students report to the Student LifeCenter. H ours: 10:00 a.m. to 8:00 p.m.

23 W ednesday. Classes begin. Spring Term 2002.
23-25 W ednesday-Friday. Late registration and change period. H ours: Tuesday-Thursday 9:30 a.m. to 6:00 p.m.; Friday 9:30 am. to 5:00 p.m. A dvisors avail able from 3:00 to 5:00 p.m.

25 Friday. Last day to file notification in Office of D octoral Studies of intention to defend Ph.D. and Ed.D. dissertation during Spring Term 2002.

25 Friday. Last day to file application for Doctoral Certification Examination (Ed.D./Ph.D.) to be given February 15 and February 22.

31 Thursday. Last day to file or to renew an application, in Registrar's Office, for M aster's degrees and certificates to be awarded in May. (After this date, application may be filed only until February 14 upon payment of $\$ 15$ late fee)

31 Thursday. Priority deadline for submission of 2002-2003 financial aid application for scholarship and need-based aid in the Student Aid Office and for submission of the 2002-2003 admission application to the Admission Office.

February 1 Friday. Last day to deposit Ed.D. dissertation and abstracts, which have been corrected in accordance with Dissertation Secretary's evaluation, and to pay microfilm feefor February 13 award of degree.

5 Tuesday. Last day to add and drop courses for Spring Term 2002, file a Certificate of Equivalency, and enroll in Student H ealth Service and Student Medical Insurance plans.

6 W ednesday. Requests for late registration under exceptional circumstances on or after this date require registrar's approval and payment of $\$ 100$ late registration fee.

8 Friday. Last day to deposit Ph.D. dissertation with the Office of D octoral Studies and the G raduate School of Arts and Sciences for the award of the February degree.

13 W ednesday. A ward of February degrees and certificates. No ceremony.

15 Friday. Doctoral Certification Examination (Ed.D./Ph.D.) for students not majoring in an area of psychology. H ours: 9:00 a.m. to 12 noon and 1:45 to 4:45 p.m.

15 Friday. Last day to file notification in Office of D octoral Studies of date and time of final Ph.D. Oral Defense to beheld in Spring Term 2002.

19 Tuesday. Last day to change points in variable point courses.

22 Friday. Doctoral Certification Examination (Ed.D./Ph.D.) for students majoring in an area of psychology. H ours: 9:00 a.m. to 12 noon and 1:45 to 4:45 p.m.
$\begin{array}{lll}\text { M arch } & 1 & \text { Friday. Last day to file M aster's essays for M ay }\end{array}$ degrees.

14 Thursday. M idterm date, Spring Term 2002.
17-24 Sunday-Sunday. Spring H olidays.
April 1-30 M onday-Tuesday. All bank Ioan recipients who will complete degree requirements during the Spring Term 2002 must schedule loan exit interview with the Student Aid Office.

22 M onday. Registration for the Summer Term for continuing students via web and touchtone begins.

30 Tuesday. Last day to deposit Ed.D. disserta tion and abstracts, which have been corrected in accordance with Dissertation Secretary's evaluation, and pay microfilm feefor May 22 award of degree.

May
14 Tuesday. End of Spring Term 2002.
15 Wednesday. Termination of occupancy in Teachers College residence halls for Spring Term 2002 for students not remaining for Summer Session A. Extensions granted for students remaining for Commencement.

17 Friday. Last day to deposit Ph.D. dissertation with the Office of Doctoral Studies and the Graduate School of A rts and Sciences for the award of the May degree.

21 Tuesday. Teachers College M aster's degrees Convocation, 4:00 p.m.

22 Wednesday. Conferring of degrees, 10:30 a.m.; Teachers Coll lege Doctoral degrees Convocation, 2:30 p.m.

23 Thursday. Termination of occupancy in Teachers Col lege residence hall $s$ for Spring Term 2002 for students who are partici pating in Commencement.


## Nutrition and Public Health

The nutrition program at Teachers College is in a dynamic environment with links to regional and national research and practice sources in nutrition. The opportunity to build on these connections to conduct innovative research in nutritional epidemiology and alternative health practices is relatively untapped but nonetheless unparalleded. Indeed, it represents a logical extensi on of my research that has shown that dietary fiber and whole grain intakes decrease the risk of heart disease and dairy and egg consumption may increase the risk of ovarian cancer. I am interested in transating these research findings into di etary guidel ines and public policy.

Law rence H. Kushi, Sc.D., Ella McCollum Vahlteich Professor of Human Nutrition

## RESEARCH AND SERVICE ACTIVITIES

Organized research and service activities at Teachers College, in addition to being carried on by individual professors, are conducted through special projects and major institutes. Students, in limited number, serve in these institutes and projects as assistants, sometimes with academic credit, thus extending their professional experience while at the College.

The Center for Adult Education is interested in research on adult and organizational learning; and on transformative learning for adults in a variety of settings. The Center has conducted awardwinning research on literacy and has pioneered an innovative Action Research Professional Development program (ARPD) for literacy teachers through reflective practice and experimentation in the classroom. The Center has also conducted many formative evaluation studies of adult education initiatives using Perspective Discrepancy Assessment.

For further information contact Professor Victoria M arsick, Teachers College, Columbia University, 525 W. 120th St., Box 112, N ew York, NY 10027; tele phone (212) 678-3754.

## The Center for Arts Education

Research consists of an interdisciplinary arts group which engages in basic and applied research in the arts and human development, art education and the arts
in education. The Center calls upon expertise from professionals in the arts: visual, music, dance, theater and media and also from philosophy, cognitive and developmental psychology, curriculum, education and technology. A mix of focuses characterize the Center's work. Studies explore the role of the arts in diverse educational settings from the vantage point of school reform, curriculum development, arts integration and assessment. Of particular interest is the role of the arts as they interweave in urban culture and education. Other studies deal directly with aspects of artisticaesthetic thinking, perception and action both within and across the diverse domains of the arts.

For more information, contact co-directors Professors H al Abeles and Judith Burton, Teachers College, Columbia University, Box 78, 525 W est 120th St., N ew York, NY 10027; telephone (212) 678-3459.

## The Center on Chinese Education is

 aimed at contributing to a better understanding of education in China and to educational exchange between the United States and China. It seeks to achieve this mission through three categories of activities: research and development, education and training, as well as outreach and exchange. These activities draw upon the historically special rela tionship between Chinese Education and Teachers College, the interests and expertise of the faculty at Teachers College, aswell as expertise and resources outside of Teachers College. The Director of the Center is Dr. Mun C. Tsang, Professor of Education at Teachers College. Major funding for the Center's activities is provided by the $H$ enry Luce Foundation and the Ford Foundation. The Center's website is located at www.tc.columbia.edu/centers/coce.


Professor Law rence H. Kushi

## The Center for Health Promotion,

 which was established in 1981, has comprised diverse working groups of faculty and students interested in stimulating research and development efforts responsive to national priorities in health promotion and disease prevention. Historically, the work of participating faculty and students has spanned both
## Discovering Prevention and Intervention Strategies

"T he center is focused on finding proactive ways to support research with direct applications to the lives of people with disabilities $O$ ur interest is in discovering prevention and intervention strategies that can prevent the adverse effects of poverty and disability and improve the academic, personal, and social outcomes of education programs. Center activities are aimed at increasing opportunities for individuals with di sabilities to be self-determined, fully included members of society. T hese efforts include studies desi gned to increase academic and social resilience and to decrease vulnerability to abuse in high-risk adolescents and adults."

Linda Hickson, Professor of Education and Director, Center for Opportunities and Outcomes for People with Disabilities
basic and applied research and development, and has included projects focusing on the influences of personal behavior on heal th status, as well as how educational and behavioral intervention can be used to improve heal th and prevent premature death and disability throughout the human life span through schools, patient care, workplace, and other communitybased settings.

Faculty of the center have been instrumental in organizing and supporting the development of multidisciplinary teams capable of competing for external grant support to address complex research questions. These teams have collaborated on consortium projects with physicians and with behavioral scientists, biostatisticians, epidemiol ogists, economists, and other experts, and often invol ve graduate students from the programs in the health studies cluster of the Department of H ealth and Behavior Studies.

Extensive collaborative research activities have been undertaken during the last two decades with faculty from the various schools of the Columbia University Faculty of M edicine, including the School of N ursing, College of Physicians and Surgeons, and the Joseph A. M ailman School of Public H ealth; W eill M edical College and Graduate School of M edical Sciences of Cornell University; and the Albert Einstein College of M edicine. Center projects and investigators have been funded by grants from several of the $N$ ational

Institutes of H eal th and numerous private foundations, including the Arthritis Foundation, Cancer Research Foundation of A merica, W. K. K ellogg Foundation, M etropolitan Life Foundation, and the Pew Memorial Trusts.

In addition to publication in scientific journals, faculty of the Center have al so contributed to the science base underlying professional practice and policy development in health promotion and disease prevention by providing consultation and technical assistance to private and voluntary health organizations, governmental agencies such as the N ational Institutes of H eal th and Centers for Disease Control and Prevention, and other research groups. Faculty have al so consulted on various international efforts, including the Vietnam Rehabilitation Project, a multinational effort of H ealth Volunteers $O$ verseas and the U.S. A gency for International Development to assist in the development of new curricula for professional preparation in medicine, nursing, and public health; the Verona Initiative, a multi-sector European partnership for heal th development that has been organized by the W orld H ealth Organization European Regional Office; and the Salzburg Seminar Special Session on Critical Issues in Global H ealth: Leadership Challenges in the 21st Century, which was convened July 2000 in Salzburg, Austria.


Professor Linda Hickson

For further information, contact Professor J ohn P. Allegrante, Director, Center for H ealth Promotion, Teachers College, Columbia University, Box 114, 525 W. 120th St., N ew York, N Y 10027.

## The Center for Opportunities and

 Outcomes for People with Disabilities (formerly the Research and Demonstration Center for H andicapped Children) confronts the chal lenges facing special education today and broadens the scope of research at Teachers College. The Center is committed to producing knowledge and professional expertise that will enhance the quality of life for people with disabilities.The Center for Opportunities and Outcomes for People with Disabilities is committed to supporting research, evaluation, and demonstration efforts aimed at

## Collaboration a Key Influence

"G roup dynamics play a dominant role in almost every aspect of our daily lives- in families, learning environments, institutions and organizations, and society as a whole. Whatever the venue, collaboration is a key influence in achieving sound objectives from reationships in the community, the workplace, the classroom, or the houschold. With an understanding of both small and large group dynamics, as well as such concepts as boundaries, authority, role, and task, that collaboration can take the form of shared visions, agreement on plans of responsibility, and participation in action steps. H aving a stake in the process can yield good results in the outcome."

Debra A. Noumair, Associate Professor of Psychology and Education
increasing opportunities for individuals with special needs to become fullyincluded members of society. Three broad priorities are reflected in the themes of the Center:

Empowerment. Research and demonstration efforts to enhance capacity and opportunities for independence and selfdetermination.

Prevention. Research and demonstration efforts to prevent negative outcomes often associated with disability, including reducing vulnerability to victimization and abuse.

Diversity. Research and demonstration efforts to address di sability-related issues of culturally and ethnically diverse groups, including women and minorities.

For information, contact Professor Linda Hickson, The Center for Opportunities and Outcomes for People with Disabilities, Teachers College, Columbia University, Box 223, 525 W. 120th St. N ew York, NY 10027.

The Center for Children and Families conducts interdisciplinary and policy-relevant research on the education and development of children and families, provides training for young scholars and policy anal ysts to take leadership roles in national and state policy-making activities which focus on children and families, and houses several archival data sets. The Center examines the health and
developmental well-being of children and families, combining both biological and environmental perspectives. The Center addresses these perspectives within a framework which links research, policy, practice and training.
The Center's research mission promotes theory construction, a better understanding of child and family well-being, and empirically tests the efficacy of child and family interventions. The policy product of the Center's research is guidance relating to public decisions made regarding the well-being of children and their families. The Center's policy function informs public decision and policy-making through theoretical and empirical examination of intervention programs and policy initiatives.

The Center has developed the following training components:

- Center A ssistantships, open to students enrolled in master's programs, allow students to become acquainted with the practice and policy initiatives of the Center.
- Center Fell owships, open to doctoral students, foster in-depth training in the nexus of policy, practice and research by working on specific Center projects related to children and families.
- Senior Fellowships, for post-doctoral training, are responsible for managing specific projects, training mas-


Associate Professor Debra A. Noumair
ter's and doctoral level students, writing policy reports, and attending policy conferences.
Additional training opportunities are avai lable to graduate students via internships and practica. These include:

- Summer Policy Fellowship Program Putting Children First, internships for doctoral students in the applied sciences to link their academic learning with their interests in social policy by conducting a research project in an applied setting, attending weakly seminars, and completing a report on their activities;
- PracticePolicy Internship (jointly sponsored with an international homebased instructional program), a unique opportunity to work with a home
based, early intervention program that helps parents provide educational enrichment for their preschool children;
- Educational Research Practica, research training coupled with readings and seminars for master's students and offered for course credit. Other practice and training endeavors include Summer Institutes, Continuing Education W orkshops, demonstration projects, and consortium opportunities that are developed to address on-going and newly initiated policy issues affecting young children and families.
The research, policy and practice framework of the Center's work emphasizes four specific themes:
- Child Care and Early Intervention
- Families and Parenting
- Vulnerable and At-Risk Families
- Neighborhood and Community Influences.

For more information, contact Professor Jeanne Brooks-G unn, Director, Teachers College, Columbia University, Box 39, 525 W est 120th St., N ew York, N Y 10027; telephone (212) 678-3904.

## The Center for Social Imagination, the Arts, and Imagination

Imagination must be remesed in all dimensions of education... Maxine Greene

Founded and directed by Teachers College Emerita Professor of Phil osophy and Education Maxine Greene, the Center for Social Imagination, the Arts, and Educa tion is committed to the development of alternative modes of inventing, creating, and interpreting. Through these endeavors of the imagination, and through its series of interdisciplinary programs, the Center seeks to shape visions of "a lovelier world," embracing, in all its diverse cultural richness, one humanity. W orking in the tradition of Dewey, James, and the Existential ists, the Center brings school children, artists, academics, and
social activists together in conferences and workshops to explore possibilities of reform and transformation in schools and social communities. By sponsoring monthly "salons," the Center attempts to generate dial ogue and research projects that open new perspectives in the arts, humanities, and the human sciences. The Center is also in the process of developing networks that bring together art institutions, public schools, and Teachers College in order to investigate, document, and articulate just what role encounters with the arts-including the quintessential 20th century art forms of film and video-might play in inspiring social visions and, by consequence, in effectuating vibrant, moral communities. The Center, in its desire "to enlarge the conversation, to try for clarity, to persuade," will, in addition, publish occasional essays, in both belles letters and position paper formats, reflecting imaginative thinking and advocacy in these areas of concern. The Center for Social Imagination, the Arts, and Education is affiliated with the Teachers College Center for Educational Outreach and Innova tion. It is funded by the A aron Diamond Foundation, the Solidago Foundation, and an anonymous donor.


For more information, write to Dr. Maxine Greene, Teachers College, Columbia University, Box 132, 525 W est 120th Street, N ew York, NY 10027.

The Center for Technology and School Change helps schools integrate technology into their curricula and daily lives, by planning with schools for the use of technology, educating teachers how to use it, planning curriculum projects that include technology, hel ping teachers to implement projects, and assessing the effect of technology on schools. The Center is based on the idea that technology will have a large impact on the structure of schooling, as it has in the past, and that schools must plan for the kinds of change they want it to have. We believe that technology should be integrated with curriculum in ways that emphasize active student learning, collaboration, interdisciplinary learning and problem-solving in areas that are meaningful to schools, and conducts sitebased research. For more information, contact Dr. Howard Budin, Director, Center for Technology and School Change, Teachers College, Columbia University, Box 8, 525 W. 120th St., New York, NY 10027; telephone: (212) 678-3773; W eb site: www.tc.columbia.edu/~academic/ctsc.

The Community College Research
Center (CCRC) was created in 1996 with support from the Alfred P. Sloan Foundation, and is housed at the Institute on Education and the Economy (IEE). Since its inception, the CCRC has taken a broad and comprehensive view of the community college, seeking out the most important issues confronting these institutions.

Since community colleges are vital to the aspirations of people and their communities, it is imperative that they become part of the mainstream research agenda. "W hen we speak of the transition from school to work, we will be speaking more often of the community college," says Professor Thomas R. Bailey, an economist in the Department of International and Transcultural Studies, who is al so Director of the Center. "W hen we speak of retraining our nation's labor force, we will also be speaking more often of the community college." The mission of the Community College Research Center is to carry out and promote research on major issues affecting the development, growth and changing roles of community colleges in the United States. In addition to carrying out our own research, the CCR C strives to strengthen the research capacity both within the colleges and the broader community, attract new scholars to the field, promote discussion and debate about crucial and often controversial issues, and disseminate existing research.

Currently, the CCRC's research is focused on the following: the mission of the community college; alternative pathways for students through postsecondary education; the roles colleges are playing in workforce devel opment; connections between the high school and community college; the rise of new competitors; distance education; al ternative skill certifications and skill standards; increasing state and federal demands for accountability and assessment; the rising demand for remediation; and the changing nature of guidance and counseling.

Several Teachers College faculty and faculty from other schools at Columbia as well as other universities and research organizations also work with CCRC. In addition, the Center draws on expertise from a national advisory board of community college practitioners, policymakers, and research scholars. CCRC sponsors an ongoing seminar series, where community college practitioners and presidents, and academic and institutional researchers gather to exchange ideas, present research findings, and explore new areas of study. The Center al so provides opportunities for doctoral students who are interested in writing dissertations on community college issues. Reports of research findings, occasional papers, and non-technical briefs are available through the CCRC W eb site, or for a nominal cost.

For further information, please contact the CCRC at Teachers College, Columbia U niversity, Box 174, 525 W est 120th St., N ew York, N Y 10027 or at ccrc@columbia.e du; telephone: (212) 678-3091; fax: (212) 678-3699; www.tc.columbia.edu/ccrc.

## The Elbenw ood Center for the Study of

 the Family as Educator pursues various lines of systematic research and inquiry that bring the behavioral sciences to bear in illuminating the educational functions of the family and the relationships between the family and other educative institutions: schools, health and social service agencies, religious institutions, museums, libraries, the media. The Center's activities include research, conferences, symposia, seminars, and workshops.Current and recent topics considered at the Elbenwood Center include: social networks and educative styles of teenagers, the mediation of television by the family and television in cross-cultural perspective, family contexts of literacy, families and museums, family memories, multigenerational education, grandparents as educators, immigration, migration and family education.

Faculty and students who participate in the Center come from various departments at Teachers College and el sewhere in Columbia U niversity. The Center al so maintains liaisons with other institutions through its projects and visiting scholars. Opportunities for pre-doctoral and postdoctoral research are available. An initial statement of the research agenda of the Elbenwood Center is set forth in the following volumes: The Family as Educator. H ope J ensen Leichter, (Ed.). N ew York: Teachers College Press, 1974. Families and Communities as Educators. H ope J ensen Leichter, (Ed.). N ew York: Teachers College Press, 1979.
Address inquiries to: H ope J ensen Leichter, Elbenwood Professor and Director, Elbenwood Center for the Study of the Family as Educator, Teachers College, Columbia U niversity, B ox 123, 525 W. 120th St., N ew York, NY 10027; telephone: (212) 678-3187.

## The Hechinger Institute on Education

 and the Media operates on four levelshelping journalists who cover education do a better job, helping editors and supervisors carry out their jobs, helping educators and journalists better understand each other, and helping the general public understand the issues involving the coverage of education. The Institute carries out its mandate primarily through seminars that it holds for journal ists at Teachers College and at locales around the country. Presenters include educators, policy makers, public officials, and journal ists from throughout the country. The Institute is named in memory of Fred M. Hechinger, who was an education editor of The $N$ en Y ork Times and a trustee of Teachers College. The founding director of the Institute is Gene I. M aeroff, a former national education correspondent of TheN en York Times and an author whose books have been published by Teachers College Press and other publishers.Further information is available from the Hechinger Institute on Education and the M edia, Teachers College, Columbia U ni-

versity, Box 127, 525 W. 120th St., N ew York, NY 10027. Phone: (212) 678-4197.

The Hollingw orth Center, establ ished in 1981, is a program of the Department of Curriculum and Teaching. The Center is a service, research, and demonstration site that is designed to provide enriching educational services for children and parents in the neighboring communities, and research, internship, and training opportunities for the graduate students at Teachers College. Primarily concerned with the optimal development of the potential of young children, the Center has been internationally recognized for its exemplary educational programs. The Director of the Center, Dr. Lisa W right, can be reached at Box 170 or (212) 678-3851.

Service and $D$ emonstration
The demonstration programs of the Center include the H ollingworth Preschool, the M ath and Science Enrichment Classes, the Summer Science Program, and Project APEX. Each of these programs offers devel opmentally appropriate curricula that endeavor to nurture the talent development of the participants. The children served by the Center come from diverse backgrounds, some of whom are supported through scholarships.

The programs of the Center offer educators the opportunity to design and field test innovative curricula and instruc-
tional strategies, and to subsequently disseminate the results. The Center hosts a number of visitors on an ongoing basis and the work of the Center is presented at national and international conferences annually.

R esearch
The primary research mission of the Center focuses on the tal ent devel opment of young children from diverse backgrounds. The Center currently has projects that focus on social development, spatial development, differentiated curriculum design, and the scientific thinking of young children.

Opportunities for G raduateStudents
The Center is located within the Department of Curriculum and Teaching and is an integral component of the Education of the $G$ ifted program. The Center works collaboratively with graduate students in an effort to provide relevant experiences which enhance their academic programs. These opportunities, made avail able to students across the College, are extensive and include internships, teaching, research, observations, seminars, assessments, and curriculum design.

The J.M. Huber Institute for Learning in Organizations conducts research on learning and change in organizations. The Institute works through partnerships with organizations, including businesses,
not-for-profit, and government agencies. The Institute assists organizations that want to improve their ability to use learning strategically to address business and organizational challenges. Partner organizations and researchers associated with the Institute create and share learning tools, strategies, and results as they work together to solve problems. Groups of organizations working together on common problems study their solutions and interventions in order to improve knowledge about their effectiveness. For information, contact either of the Institute's Co-Directors, Dr. M artha A. Gephart or Victoria J. M arsick, at the J.M. H uber Institute for Learning in Organizations, Teachers College, Columbia U niversity, Box 187, 525 W est 120th Street, N ew York, N Y 10027.

## The Institute for Learning Technolo-

gies (ILT) uses digital communications technologies to advance innovation in education and society. Rapid change in information technology is reconfiguring social, cultural and intellectual possibilities. U niversity research, $\mathrm{K}-12$ and postsecondary education, the arts, community and political activities, and social exchange are all in transition. ILT is a major element of Columbia U niversity's effort to shape these transitionstransitions that are central to the University's mission and practice.

ILT takes education in its broadest sense as its primary area of work. In practice, it promotes an intellectual ly rigorous progressive education accessible to all. To renew progressivism, educators must pose powerful generative questions in coopera tive settings; and limitations on the intellectual resources available to students; enable teachers and students to communicate beyond the classroom; and provide advanced tools of analysis, synthesis and simulation. Increasing the interaction of pre-college and higher education is important. The new technol ogies provide effective support for such novel interactions. The education of the 21st century will feature extensive collab-
oration among scholars, teachers, university students, librarians, museum professionals, community organizers, parents, and children of all ages, and these rela tionships may span great distances and bridge significant cultural divides.

ILT pursues an integrated program of design, development, implementation, and evaluation.

- School-based projects aim to alter the classroom through infrastructure planning and installation, content and curriculum creation, professional development, technical support, and evaluation.
- Professional development includes workshops on the use of generic and project-specific technologies, seminars on curriculum design and development, and consultations by content experts and instructional technologists.
- Content projects develop multimedia to support innovation in education, delivering high-qual ity intellectual resources and learning tools to students.
- Evaluation projects document the impact of programs and the principles of good design, working with groups in the commercial, governmental, nonprofit, and educational sectors.
- Consulting services provide design, devel opment, and strategic analysis for organizations conducting innovative educational projects.
- An internship program provides individuals with experience in school-based projects, professional development workshops, evaluation and policy studies, and content creation.

Technology does not drive educational change, but it conditions educational possibility. Rooted in traditions of liberal education, ILT acts on the technological context to renew established educational traditions.

For more information visit www.ilt.columbia.ed or email info@ilt.columbia.edu or phone Professor Robert M cClintock at (212) 678-3375.

The Institute for Urban and Minority Education (IUM E), since its beginnings at Teachers College in 1973, has been committed to better understanding and influencing the educational, psychological, and social development of urban and minority group students.

Historically, the work has been organized by the themes of (1) education as an antipoverty strategy as a means for upward social and economic opportunity and mobility, (2) equality of educational opportunity and strategies for achieving equity, (3) diversity and multicultural ism, and (4) the reform of urban schooling.

The Institute approaches the problem of improving the quality of urban education and minority education in three ways: (1) by conceptualizing fundamental problems and formulating systematic research programs to discover solutions, (2) by translating and disseminating this knowledge and applying it in practical situations, and (3) by developing new programs, techniques, instruments, and materials that can be disseminated in a variety of educational settings. This is now being accomplished through programs of research, professional devel opment, technical assistance, knowledge dissemina-
tion, public awareness, and youth services. Because the work of the Institute is problem-centered, it al ways has had a staff from many disciplines, who take an activist role in solving the problems of urban and minority education.

For further information, address specific inquiries to the IUME Director, Box 75, Teachers College, Columbia U niversity, N ew York, N Y 10027; tel ephone: (212) 678-3780.

The Institute for Higher Education promotes and supports scholarly activity on the range of purposes, practices, policies, problems, and perspectives framing the higher education enterprise now, in the past, and potentially in the future. The Institute views postsecondary teaching, learning, and scholarly and creative endeavor in social, political, economic, and historic perspective, and promotes efforts to strengthen and enrich these "core" activities for all participants in the higher education enterprise. As such, it supports explorations of the organization and functions of the higher education enterprise, the larger social, political, and economic environments in which the enterprise evolves and to which it provides returns, and its internal educa-


tional and knowledge-based activity, as well as relationships among these.

Director: Anna N eumann, Prof. of Higher Education, Box 101, Teachers College, Columbia University, N ew York, NY 10027

## The Institute of International Studies

 was created in 1964 to strengthen the research arm of the College's international enterprise. With the initial aid of a major grant from the Ford Foundation, the Institute began its work with a focus on theoretical and practical studies of the role of education in the modernization of tra ditional societies. For over a decade, the Institute sponsored and supervised substantial research on Africa, Asia, Latin A merica, and the industrial nations as well as on a variety of cross-cultural and comparative studies. The Institute helps to formulate and coordinate the College's international effort, to serve as both catalyst and repository for grants and gifts in aid of international studies at the College, to strengthen instructional programs with comparative and international thrusts, and to upgrade the quality of research on international or cross-national themes.The Institute of Research and Service in Nursing Education (IRSNE), carries on a program of research and coursework on questions in the education of nurse professors, deans, chief executive officers, and developers of human resources. Institute members examine theory-based questions within nursing's history, provide consultant services to professionals involved in nursing research, and disseminate research findings through reports, conferences, publications, and continuing education. The Institute is the academic home of the Program for N urse Executives, offering the M.A. and Ed.D. accelerated programs on Fridays.

For further information, address inquiries to the Director, Professor Elaine L. Rigol osi, Box 167, Teachers College, Columbia University, N ew York, N Y 10027; tel ephone: (212) 678-4004.

## The Institute on Education and the

 Ec onomy (IEE), established in 1986 by the Board of Trustees of Teachers College, is an interdisciplinary policy research center that focuses its attention on the interaction between education and the economy. The Institute is dedicated to carrying out research that will help improve educational policy and practice at the local, state, and national levels andProfessor Mun C. Tsang leading a discussion on international and transcultural studies. to devel oping an active research community of TC students and faculty interested in these topics. IEE's research agenda includes issues such as the changes in the nature, organization, and skill requirements of work; education reforms designed to address the changing needs of the workplace; the educational value of work; learning on the job; the school-to-work model; the design and effectiveness of work-based learning, employer participation in education; academic and industry-based skill standards; and related education reforms.

IEE is directed by Professor Thomas Bailey, an economist in the Department of International and Transcultural Studies. The Institute's permanent staff includes sociologists, economists, and psychologists. Several Teachers College faculty and faculty from other schools at Columbia as well as other universities and research organizations also work with the Institute. IEE also offers many opportunities for graduate students to work on research projects under the guidance of faculty and senior researchers. Recent activities have included the development of joint facultystudent study groups on work-based learning and on community colleges.

Staff at the Institute have been influential in the development and implementation of the School to W ork Opportunities Act of 1994 and the Educate America, G oals 2000 Act of 1994. Reports of research findings, working papers, and non-technical briefs are available through the IEE W eb site, or for a nominal cost. The Institute also houses the Community College Research Center (see the description of the Community College Research Center).

For further information, please contact IEE at, Teachers College, Columbia University, Box 174, 525 W est 120th St., New York, NY 10027 or at iee@columbia.edu; tel ephone: (212) 678-3091; fax: (212) 678-3699;
www.tc.columbia.edu/iee.
The International Center for Cooperation and Conflict Resolution (ICCCR)
offers a concentration in conflict resolution and a Certificate of Attendance that emphasizes theory, practice and research to address the needs of individuals,
school systems, communities, non-profit groups, governments and private industry. The ICCCR 's mission to help individuals, as well as institutions, better understand the nature of conflict and how to achieve its constructive resolution. The Center particularly emphasizes the importance of the social, cultural, organizational, and institutional contexts within which conflicts occur.

H oused in the Social-Organizational Psychology Program in the Department of Organization and Leadership, the Center embraces an interdisciplinary approach to conflict resolution and courses are open to both degree and non-degree students, for credit or noncredit, throughout the College and the University. For courses and their descriptions, please see the program in Social-Organizational Psychology.

Research and training in the following areas are al so supported by the ICCCR:
(1) fostering collaborative approaches to conflict as well as developing negotiation
and mediation skills; (2) conflict resolution in schools and industry, helping individuals to learn to manage their own conflicts constructively; (3) creating dispute resolution centers in schools to help students, teachers, administrators and parents resolve conflicts constructively; and (4) research and development analyzing which programs work in schools and industry. Conferences as well as consulting services and training workshops based on sound empirical theory and research are provided.

The Center is directed by Peter Coleman, Assistant Professor of Psychology and Education. For further information, visit the ICCCR in R oom 232, H orace M ann Building or contact the office: ICCCR, Box 53, Teachers College, Columbia U niversity, 525 W est 120th Street, N ew York, N Y 10027; telephone: (212) 678-3402; e-mail:

ICCCR @columbia.edu.

Professor Peter Coleman in a seminar session on conflict resolution.


Independent School Leadership
"T he aim of the Klingenstein Center is to nurture and renew leadership among teachers and administrators who have distinguished themselves through their work in independent schools. T he C enter sponsors a variety of programs that address the needs of different constituents, beginning teachers, mid-career teachers and administrators and heads of schools. The focus is on professional development, believing that the most important component in educational advancement is not bricks and mortar, but the men and women who lead schools. To date, almost 1400 educators from schools throughout the world have participated in Klingenstein Center programs."

Pearl Rock Kane, Associate Professor of Education and Director, The Klingenstein Center

The Esther A. and Joseph Klingenstein Center for Independent School Educ ation sponsors four programs aimed at the professional development of independent school teachers and administrators and research activities that contribute to the advancement of independent school education.

## The Joseph K lingenstein Fellows

Award is granted annually to up to 12 outstanding teachers and administrators for participation in one semester or a year-long intensive program at Teachers College and designed to develop leadership skills in administrative or academic areas. Through reading, research, and discussion in seminars and course work at Teachers College and the other professional and graduate faculties of Columbia University, the program seeks to enlarge the perspectives of Fellows and prepare them to assume increased leadership responsibility within their sponsoring schools. As part of the program, Fellows may earn graduate credits to be counted toward a degree at Teachers College. A ny teacher or administrator of an independent elementary, middle and secondary school with a nondiscriminatory admissions policy is eligible to apply. The award includes a stipend, tuition allowance, a supplement for school age children relocating to N ew York City, and housing allowance for those who are resident faculty at boarding schools.

## The K lingenstein Visiting Fellows Program for Heads of Independent Schools allows up to fifteen heads of



Professor Pearl Rock Kane
schools to spend three and a half weeks in residence at Teachers College, focusing on problems of particular relevance to their schools, engaging in coursework, meeting in seminars to discuss educational issues, and enjoying the cultural resources of $N$ ew York City. The program provides school heads with the intellectual stimulation of studying with outstanding professors and the opportunity for meaningful dialogue with independent school colleagues. The purpose of the program is to prepare those already in positions of leadership to face the challenge of leading independent schools. As part of the program, Visiting Fellows may earn graduate credit to be counted toward a degree at Teachers College or elsewhere.

Any school head of an elementary or secondary independent school with a nondiscriminatory admissions policy is eligible to apply. The award includes full tuition and fees, housing, and participation in New York City cultural events. Sponsoring schools are asked to provide round-trip travel expenses.

The Joseph K lingenstein Summer Institute Award is granted annually to teachers in the independent el ementary, middle or secondary school sector who have demonstrated outstanding potential for leadership. The Institute is geared toward increasing classroom effectiveness and strengthening commitment to teaching as a career. The Institute program encompasses a variety of activities that are designed to: provide a forum for collegial sharing, explore advanced methodologies in a particular subject area, stimulate fresh thinking and introduce new ideas in curriculum, methodology, and technique, and increase insight into the nature of educational practice.

Each participant has an opportunity to earn four graduate credits applicable toward a M aster's degree at Teachers College or elsewhere. Teachers with more than one and a maximum of five years of experience are eligible to apply. Their school must have a nondiscriminatory admissions policy with regard to race, color, religion, or national origin. Candidates are judged on the basis of a personal essay, evidence of successful academic performance, and a letter of endorsement from the school head or

principal. The award includes full tuition and fees, housing, and weekday meals. Sponsoring schools are asked to provide round-trip travel expenses.

## The Master's Degree with a concentration in Private School Leadership is co-

 sponsored by the Department of Educational Administration and the Esther A. and Joseph K lingenstein Center for Independent School Education. The degree concentration is designed to enhance the professional careers of department heads, deans, division directors, and school heads or to prepare outstanding educators for such positions. The degree program has the following core components: administrative leadership of private schools, privatization and school choice in the US, seminar on independent school (for full-time students), legal aspects of school administration, behavi oral research, resource all ocation for nonprofit organizations, and strategic marketing. Students are required to participate in field service and to complete a research project in collaboration with a small group. The special features of the program include site visits to public and private schools and a connection to an extensive network of cooperating schools. The program attracts national and international students. Degree requirements may be complete inone year of intensive study or on a parttime basis. Candidates should have at least three years teaching experience.

For further information contact the K lingenstein Center, Teachers College, Columbia University, Box 125, 525 W. 120th St., N ew York, NY 10027; telephone: (212) 678-3156; or visit the Center's W eb site at www.Klingenstein.org.

The National Center for Restructuring Education, Schools, and Teaching (NCREST), established at Teachers College in 1990, supports restructuring efforts by documenting successful school improvement initiatives, creating reform networks to share new research findings with practitioners, and linking policy to practice.

N CREST works to develop understandings that help schools become: learnercentered by focusing on the needs of learners in decisions about school organization, governance, and pedagogy; knowledge based, by restructuring teacher learning and professional development that are supported by disciplined inquiry; and responsible and responsive, by refocusing and reinventing accountability and assessment practices.

Currently, N CREST is involved in a variety of projects including integrating
technology with curriculum and educational technology, Professional Development Schools, teacher learning, student assessment, the documentation of successful school reform efforts in elementary and secondary schools, and the development of local, state, and national policies that reflect the relationship of research and practice.

Betty Lou Whitford is the director of N CREST. For further information contact N CREST, Teachers College, Columbia University, 525 W. 120th St., Box 110, N ew York, NY 10027; telephone: (212) 678-3432.

The National Center for the Study of Privatization in Education (NCSPE) serves as a non-partisan venue to analyze and disseminate information about the contentious private initiatives in education that include vouchers, charter schools and educational contracting.

Proponents of privatization view the movement as improving school choice, student outcomes and innovation through competition in the marketplace. They point to the poor performance of urban schools and how competition might convert failure into success. Opponents argue that the movement undermines al ready flagging urban public schools, depriving the system of motivated students and scarce resources to bring about reform, leads to increased segregation of students, and runs counter to the establishment clause embodied in the First A mendment of the United States Constitution.

Currently there is no disinterested authority to test and verify the conflicting claims of proponents and opponents, leaving the debate to those who argue on ideol ogical grounds rather than empirical data. In evaluating different privatization plans, the center uses four criteria: the freedom for parents to choose schools that mirror their values and religious beliefs; productive efficiency that maximizes school results;


#### Abstract

Curriculum Makers "In preparing our graduate students to teach reading and writing, I urge them to think for themselves in the classroom, avoid orthodoxy, ask questions, beflexible, and don't take everything for granted. I want them to become researchers in the classrooms, documenting what they observe children doing, linking that to educational theories, and become curriculum makers themselves."


## Marjorie Siegel, Associate Professor of Education

equity that provides access for all to the range of educational opportunities, and social cohesion that prepares youngsters for democratic and civic participation.

The Privatization Center is affiliated with the Department of International and Transcultural Studies. Its Director is Henry M. Levin, William Heard Kilpatrick Professor of Economics and Education. The Center disseminates its research, policy anal ysis through conferences, the W orld W ide W eb, publications and the media. It al so has entered a partnership with the education commission of the states to provide information to governors, state legislatures and state departments of education.

For information contact: Professor Henry M. Levin, N CSPE, Teachers College, Columbia U niversity, 525 W. 120th St., Box 181, N ew York, N Y 10027; telephone: (212) 678-3259; W eb site: www.tc.edu/ncspe.


Professor Henry M . Levin


Professor Marjorie Siegel
The Institute on Education and Govern-
ment believes that the education of our youth and life-long learning opportunities for all citizens is our nation's most important challenge, and we believe governors play the critical role in meeting this challenge. Our mission is to provide powerful and effective support to governors and other leaders committed to education. We devel op ideas for education innovations and research combined with implementation strategies. Our non-partisan Institute concentrates its efforts with individuals and groups that have the compassion, courage, and determination to create initiatives that fulfill this mission. The Institute accomplishes its mission through four core programs: The Governors' Education Planning Program; the Thomas H. K ean G overnor of the Year Awards; the $N$ ational Education Advocacy Program; and Leadership Seminars for Governor's Staffs. The Institute al so publishes a quarterly report called The Governors' Briefing.

Further information is available from the Institute on Education and Government,

Teachers College, Columbia U niversity, Box 34, 525 W. 120th St., N ew York, NY 10027; telephone (212) 678-8402; e-mail: ieg@columbia.edu.

The Rita Gold Early Childhood Center serves to support and promote the growth and development of infants, toddlers, preschoolers and their families through four inter-rel ated practices: supportive early care and education for very young children; transdisciplinary professional preparation for students; ongoing research to improve practice and inform theory in early devel opment, care and education for young children and families; and outreach within and beyond the Teachers College community. Located at the College, the Center provides inclusive and culturally responsive care within mixed-age groups for children ages 6 weeks through 5 years and their families who are affiliated with Columbia University. Founded in 1982 as the Center for Infants and Parents, the Center's growth and development has been supported over the years through the gifts of many kind and generous donors. We are grateful to Rita and Herbert Gold for their support of our most recent expansion.

The Rita Gold Center is a resource for students across the College who are engaged in observation, teaching, and research with young children and families. Supervised practica focusing on educational and developmental issues for infants, toddlers and preschoolers are offered on site at the Center.

For further information contact: Dr. Sonja de Groot K im, On-Site Center Director,

## Technologically Transformed Library

"O ur library both houses and connectsto a vast repository of information that is easily accessible to members of our Teachers C oll ege community wherever they are and whatever they are doing. Technology has transformed the library from a manually managed center to a computer-oriented environment with information immediately available at the touch of fingertips on a keyboard. And, to help our library patrons, we offer a range of services, including instruction on the ability to use the new technology, maneuver among the various pages of theW orld W ideWeb to connect to remote libraries with primary materials, cultural depositories and muscums, evaluate vas amounts of information, and seek insights into various educational quetions. We used to speak of sources as multidi sciplinary. Now, we refer to them as megadisciplinary."
Jane P. Franck, Director of Milbank Memorial Library

Rita Gold Early Childhood Center, Teachers College, Columbia U niversity, 525 W. 120th St., Box 98, N ew York, NY, 10027; tel ephone: (212) 678-3082.

The Teachers College Reading and Writing Project is a staff development organization that works in intimate and long-lasting ways with communities of educators in the N ew York City metropolitan area and al so provides more limited assistance to educators in schools from all over the U nited States. Currently the Project serves over 100 schools.

For two decades, the Project has supported educators establishing reading and writing workshops in which teachers act as mentors and coaches to children. Project staff and teachers become coresearchers, observing what children do in writing and reading, theorizing about what their behaviors mean, and planning teaching moves to help them learn. To nurture this school-based work, Project staff meet at the College with educators from Project schools: Each week over 100 teachers gather in study groups focusing on becoming teacher-leaders in workshop teaching, and each month over 100 principals gather focusing on the problems, chal lenges, and opportunities of being a school leader in literacy education.

The Project's school-based consulting, study groups, and think-tanks are complemented by an array of other profes-


J ane P. Franck
sional education opportunities at the College. Throughout the year, thousands of teachers attend sixty full-day Projectrun conferences providing information and insight about how to structure and sustain high qual ity literacy education. Every summer, three thousand teachers attend one of several week-long Project Institutes which include keynote addresses, small groups study, and interactive discussion groups.
The Project was founded and is directed by Lucy M cCormick Calkins, Professor of Education. For further information contact the Teachers College Reading and Writing Project, 525 W .120 th St., Box 77, N ew York, N Y 10027; telephone: (212) 678-3104.

The Milbank
Memorial Library
The Milbank Memorial Library of Teachers Coll ege is one of the nation's largest and most comprehensive research libraries in education. The library's collection provides a wealth of source materials for advanced study and research in education, psychology, and the health professions.
The library collection is comprehensive in American elementary and secondary education, and in such subject areas as psychol ogy, particularly applied psychology, educational administration, the history and philosophy of education, guidance, special education, higher and adult education, speech and language pathology and audiology, health and nursing educa tion, nutrition, curriculum and teaching, communications and computing technology, recreation, and international and comparative education. Research resources in printed, non-printed, and electronic formats include all important reference works; a wide selection of monographs; extensive journals; and major indexing and abstracting services.

## Distinctive Collections

The library is noted for the variety and depth of its distinctive collections of materials documenting education in its local, national and international dimen-
sions. These include: the R are Books in Education Collection, classic works on education dating from the 15th through the 19th centuries; the Darton Collection of British children's literature of the 17th through 19th centuries; the H istorical Collection of American and British children's books of the 19th century; the Annie M oore Collection of illustrated children's literature; the American nineteenth century textbook collection; and the International Textbook Collection, comprising el ementary and secondary school texts from throughout the world.

The A delaide N utting Collection of books, pamphlets, and manuscripts on the history of nursing and the David E. Smith Collection of writings on mathematics education provide unusual depth of coverage in their fields. Other notable holdings include the International Collection of works on education abroad, extensive collections of 20th century textbooks and courses of study, and a regularly updated collection of 20th century fiction and nonfiction for children.

M anuscripts and archival collections cover a wide range of educational topics and include the records of such major organizations as the $N$ ational Council for the Social Studies, the Board of Education of the City of N ew York, the Bank Street College of Education, the W illiam T. Grant Foundation, the $N$ ational K indergarten Association, and the A merican M ontessori Society.

The Teachers College A rchives hol dings include the records of college offices and the papers of individual faculty members. M ajor collections include the papers of Dean J ames Earl R ussell, Dean William Russell, and President H ollis L. Caswell, the historical records of the N ursing Education program, the Guidance Laboratory Test Collection, the records of the Peace Corps Training Program and of international education programs in Asia, A frica, and Latin America. N otable faculty papers include those of William H. Kilpatrick, Paul

M onroe, A. H arry Passow, and other leaders in education throughout the twentieth century.

## Academic Information Resources and Services

MilbankW eb, the library's W orld W ide W eb site, located at
http://Iweb.tc.columbia.edu, is the focal point for a growing array of library services that support instruction and research at the College. MilbankW eb combines news and information, access to local and remote databases, and exhibits that showcase the accomplishments and contributions of notable Teachers College persons and programs, particularly as they relate to or are reflected in library collections and archives. Through advances in electronic information resources and global networks, library users increasingly have access to the 'virtual library,' providing the means to search and retrieve a growing percentage of the universe of documents and files. The home page is accessible during regular library hours from workstations in the library, and at all times from any computer with a W eb browser and access to the Internet.

EDUCAT, the online public access catalog, integrates the library's catalog information with up-to-the-minute circulation, reserve, acquisitions, and serial control information. The EDUCAT database currently includes over 663,500 volumes and plans are under way to add all of the library's print and non-print collections. EDUCAT is available during regular library hours from workstations in the library, and at all times through the library's home page; through telnet to: 128.59.88.2; and through dial-up to: (212) 678-4118. The web version of EDUCAT is available from the library's home page at
http://lweb.tc.columbia.edu. This site includes over 250 records with direct links to full-text journals on the W orld Wide W eb.

## The Columbia Connection

Access to CLIO via EDUCAT is the means for our students to connect to the collection of the Columbia U niversity library system, the nation's seventh largest academic library housing more than six million volumes, four million units of microfilm, 2,500 separate collections, important maps, phonograph records, pamphlets and CD-ROMs.

To facilitate access to scholarly materials, the libraries have developed LibraryW eb, a powerful integrated Web-based library computer system. This resource links users to library catal ogs, electronic reference tools and indexes, digital collections (including numerous electronic journals), subject guides and bibliographies, search engines, and extensive information on individual libraries, services, and events.

## Milbank Services

The Research Services Department provides reference, research support, and library instruction services, including instruction in the use of online and card catal ogs, assistance with reference materials, referral to other libraries, bibliographic instruction, online database search services, research consultation, and course-specific instructional support.

Reference queries, suggestions and recommendations, and requests for services may be submitted in person or by e-mail via the library's home page. Interlibrary Loan provides Teachers College students, faculty, and staff with access to books and periodical literature not owned by Milbank Memorial Library or Columbia University Libraries. By use of national and world-wide catalogs and through cooperative agreements with libraries around the world, the Library can provide a book, dissertation, or photocopy of an article.

Services for Students with Disabilities provide a variety of special equipment and services for differently-abled users.

The Periodicals, Microforms, and Copy Services (PMC) manages 3,000 currently received serial titles, including journals, newspapers, and other serials in hard copy and microform as well as dissertations on microform, college catalogs, and the complete ERIC Document Collection on microfiche.

In its development as a model school library, the Resource Center supports instructional programs of Teachers College and provides curriculum orientations and workshops in the use of K-12 printed collections, multimedia and Internet resources. Also hosted are teleconferences and demonstrations of new educational software. Cooperative outreach efforts include a weekly story hour for local school children and technology instruction for local school teachers. The Center provides two small computer laboratories, with facilities for viewing educational software, multimedia, audiovisuals, and microfiche. The department's presence on Milbank W eb at http://lweb.tc.columbia.edu/cs/modelsl/i ndex.htm features virtual information services; online collections; curriculum exhibits; a conference room; demo lab; and children's activities.

The Access Services department provides library patrons prompt access to all circulating and non-circulating items. Services include processing course reserve and "rush" catalog requests; placing holds and recalls; collection maintenance; and electronic renewal for users via the W orld W ide W eb.

For further information contact Milbank Memorial Library, Teachers College, Columbia University, 525 W. 120th St., Box 307, N ew York, NY 10027; telephone: (212) 678-3494.

## COMPUTING AND

Information Services
Computing and Information Services (CIS) is responsible for academic and administrative computing, media services, the campus data, voice and video network, and telecommunications. These services include e-mail and course W eb pages, desktop computers, student laboratories, multi-media classrooms, audiovisual services, management information systems, telephone and satellite and video-conferencing connections, and residential cable television. M ore extensive information may be found at the Computing and Technology Resources link on the main TC homepage: www.tc.edu.

## Electronic Mail Accounts

Teachers College students, faculty, and staff may use e-mail accounts provided by Columbia U niversity A cademic Information Services (AclS). In addition to campus and Internet communications, these accounts al so provide space for personal home pages. This e-mail can be accessed from the Internet. Columbia maintains a modem pool for dial-up access from home, which affords access to the Columbia domain as well as the Internet. From anywhere in the five boroughs of $N$ ew York City, this is accessed as a local call. M ore information can be found on the Columbia A cademic Information Services page:
www.columbia.edu/acis. Faculty and staff al so have MS Exchange e-mail accounts hosted at Teachers College to foster workgroup computing.

## Acceptable Use Policies

As part of the Columbia U niversity network, students, faculty and staff use Teachers College electronic resources subject to the policies found at www.columbia.edu/acis/policy. U se of electronic resources must al so conform to Teachers College policies, regardless of explicit reference in the policies to electronic or other media. Policies including
those related to professional conduct, sexual harassment and others are found at www.tc.columbia.edu/administration/hr/policies.procedures.htm. Teachers College electronic resources shall not be used to violate any City, State or Federal laws. Copying, storing, displaying, or distributing copyrighted material using Teachers College or Columbia University computers or networks without the express permission of the copyright owner, except as otherwise allowed under the copyright law, is prohibited.

## Campus Netw ork

Data, voice, and video outlets are found in every classroom, office, and residence on the main portion of the campus. Internet and Internet-2 access are provided by Columbia U niversity.

## Public Computing Facilities

The Microcomputer Center in 242 H orace $M$ ann provides students with PCs and M acs, software, printers and other peripherals. This laboratory is open daily. The Center's software library includes PC and Mac programs for word processing, W eb development, graphics, statistical analysis, qualitative anal ysis and databases. A current list is maintained on the Computing and Technology Resources W eb site
(www.tc.columbia.edu/cis) under Software Applications.

Computer classrooms with workstations at each seat in 345 M acy (see below) are available for open use when not scheduled for instruction.

Email and local Web sites are also accessible from 19 kiosks located in corridors on the first and ground floors of campus buildings and the Student Lounge. Milbank Library has more than 50 public workstations connected to the Internet, including some which are specially equipped for disabled users.

## TC ClassWeb2

The second generation of college-wide courseware, ClassW eb2 provides precreated Web sites for each class each semester. Features include syllabus, discussion, chat, filesharing, and subgroups. These sites are used by most regular TC classes and al so support classes taught to students at a distance.

## Instructional Media Lab

N ew in 2001, the Instructional Media Lab (IML) in 265 M acy is a facility for students and faculty to create rich content for classes, online learning, student teaching, and research. Digital cameras and other equipment are loaned. W orkstations allow for computer-based full motion video from camera, VCR, or videodisk to be edited, integrated with animation and digitized voice and music and to be written to CD, DVD, or tape. IML also provides satellite downlink.

## Computer Classrooms

Computer classrooms for hands-on instruction include both a PC and a $M$ acintosh room in 345 M acy. The Goodman Family Computer Classroom suite, opened in 1999, includes a classroom equipped with 32 notebook computers on tables that can be reconfigured to accommodate varying workgroup sizes. Located in 234 H orace M ann, it al so has a seminar room for 10 people. The M acy rooms are avai lable for use by students and faculty when not scheduled for instruction.

## Multi-media Classrooms

Multi-media display classrooms provide equipment such as M acs, PCs, VCRs audio-tape players, and document cameras. There are currently more than 12 rooms with dedicated computer and projection equipment, with plans for additional ones to be added each year. In addition, all classrooms have campus network connections, and laptops and projectors may be borrowed from M edia Services. There are about 12 classrooms
with secured carts with a VCR and monitor, another 12 carts may be reserved for use in other rooms. Video-conferencing connections are provided for special events at any location upon request.

## Training

Training workshops are scheduled throughout the year on how to use electronic mail, word processing, spreadsheets, the Internet, statistical analysis, photo and video manipulation, and multimedia authoring. In addition to workshops, individual training is also available. A cademic Computing Services al so provides auto-tutorial materials on CD-ROMs.

## Administrative Systems

Students are able to register, drop and add classes, check financial aid, academic history and current grades or pay by credit card using Touchtone and W orld W ide W eb access.

## Microcomputer/LAN Services

Student support is provided at the M icrocomputer Center and in the residence hall.

All faculty and staff have workstations appropriate to their work, with budgeted replacement at $25 \%$ per year. The local area network features file and print services as well as Microsoft Exchange, webservers and other applications. The CIS Help Desk provides problem resolution via telephone and office visits.

## Residential Telecommunications Services

Telephone, voicemail and cable television services are provided in student and faculty residences. Those living in Whittier and Lowell H alls have direct connections to the campus data network. Detailed information is found on the Computing and Technology Resources (www.tc.columbia.edu/cis) site under Telephone and Cable TV.

Instruction and Research Support Services

## Center for Educational and Psychological Services

D irector: Dindia Rosa, Ph.D.
The Center for Educational and Psychological Services is both a training and research center for the College and a community resource that provides help to people of all ages with educational and personal problems. The services offered include full psycho-educational eval uations and educational eval uations focusing on learning issues coupled with appropriate remediation, instructional planning and instruction for students with disabilities, adult and child psychotherapy, personal and vocational counseling and psychological diagnostic evaluation. Several hundred psycho-educational assessment and evaluation instruments, as well as a growing library of materials for reading and mathematics remediation are available for use by the students attending practica affiliated with the Center.

Services are provided by advanced graduate students from the Clinical/Counseling, Curriculum \& Teaching, and H ealth \& Behavior Departments. All work is supervised by full-time and/or adjunct faculty of the College's programs. Fees are set on a sliding scale that is designed to meet all budgets.

Further information and applications for service may be obtained by calling (212) 678-3262; by writing to the Center for Educational and Psychological Services, Teachers College, Columbia U niversity, Box 91, 525 W est 120th Street, N ew York, N Y 10027-6696; or by coming to the Center on the sixth floor of Thorndike H all.

## Addressing Communications Disorders

"Speech pathology is a profession that focuses on preventing and rehabilitating a wide variety of communications di sorders and difficulties. They include articulation di sorders, language delay, accent problems, stuttering, swallowing problems, and deficits from strokes. In addressing these concerns, our graduate students work with clients in clinic settings on campus and in field placements off campus. O ne of the reasons our graduates are so much in demand as professionals is the wealth of practical experience they have. That, combined with the physiological and neurological aspects of speech, leads them to career positions in schools, geriatric clinics, hospitals, rehabilitation units, speech clinics, and private practice. $O$ ur students need not have undergraduate training in the fiedd, but we attract the best and most interesting candidates because of the rigorous and rewarding program we offer."

Patricia Sweeting, Director, Edward D. M ysak Speech-Language and Hearing Center

## Edw ard D. Mysak Speech-Language and Hearing Center

D irector: Patricia M. Sweeting, Ph.D., CCC-SLP
A ssistant D irector of Speech and
L anguage Services:
L aura Fitzpatrick-N ager, M.A.,
CCC-SLP
D irector of A udiology Services:
Teresa B oemio, M .S., CCC-A
The Edward D. M ysak Speech-Language and H earing Center provides advanced students in the Speech and Language Pathology and Audiology master's program with practical experience in a professional setting. The Center offers evaluation and therapy services to individuals in the College, U niversity, and community who may have speech, voice, language, or hearing problems. A complete speech and language and/or hearing evaluation is scheduled; speech and Ianguage therapy sessions, a minimum of two forty-five minute sessions a week, are conducted on an individual and/or small group basis. Special clinics are al so available for infant evaluation, stuttering treatment, and accent reduction. Aural rehabilitation services, including hearing aid dispensings, counseling about effective use of amplification strategies, assistive listening devices, speechreading, and
auditory training therapy are available for both children and adults.

In addition, the Center opened an augmentative communication clinic in the Spring of 2001 to offer assessment and intervention services to children and adults in need of alternative communication devices and technology.

The Center al so offers a language stimulation program for young children with late expressive language and their parents. This early intervention program includes theme-based play sessions and a parent education group.

Initial contacts with the Center may be made in person, by letter, by telephone, or by referrals from professionals and
agencies. A sliding fee scale is available. Further information may be obtained by calling (212) 678-3409 (speech and language services) or (212) 678-3408 (audiology services) or writing the Center at Teachers College, Columbia U niversity,

M acy 169, Box 191, 525 W. 120th St., N ew York, NY 10027.

## Teachers College Press

D irector: C arole P ogrebin Saltz
For nearly a century, Teachers College Press has been committed to addressing the ideas that matter most to educators. Today, the TC Press publishing program carries on this tradition and seeks to open and expand the dial ogue between theory and practice by looking at educa-


## Translating Theory into Practice

"It's apparent to me that learning how to teach comes from the way you are taught at Teachers C ollege. O ur instructors serve as facilitators for learning. Very few lectures. M ostly small group work on assignments. For example, three of us worked together to create a half semester-long unit on diversity, including a day to day lesson plan. We then presented its highlights before the entire class It is a matter of participating in your own learning. We introduce that samestyle of teaching in actual classoom situations. Wére well grounded in theory and well prepared to translate it into practice, experiencing the art and skill of teaching from moment to moment."

Adam Tramantano, Master of Arts Candidate in Teaching of English


Adam Tramantano
tion, learning, and teaching in diverse ways. TCP's list of publications includes books, videos, cd-roms and assessment instruments of interest in all areas of education from infant/toddler to adult learning. TCP also publishes works in rel ated subjects like psychology, sociology and culture, history, philosophy, and women's studies. M any of these works cross disciplinary boundaries in ways that are always of interest and frequently provocative. TCP authors include seasoned practitioners and scholars as well as fresh new tal ent from around the world. Though sometimes controversial, TCP publishing decisions are supported by grounded research and reviewed by authorities in the field.

## Teacher Education

Programs and
INTERNSHIPS

## Teacher Education Programs

Teachers College offers a wide variety of educational experiences for students at the preservice and in-service levels. The Office of Teacher Education coordinates the many teacher education programs located in various departments at the College. Programs are field-based, offering up to two semesters of observations, internships, and student teaching.

Departments offer, for qualified holders of a Bachelor's degree, programs that lead simultaneously to a M aster of A rts degree and to New York State certification for teaching in elementary or secondary schools. M any of these departments also offer N ew York State Teacher Certifica tion with a bilingual extension. Except for candidates who have completed student teaching before admission to Teachers College, the programs require an academic year and a summer term (see both the statements in this catal og and the supplementary requirements bulletins of the departments listed below.) A pplicants need not have included courses in education in their undergraduate programs, but inadequate preparation in the proposed teaching field may necessitate specific course work to fulfill the usual requirements for the M aster's degree.

Application for admission to all programs should be made to the Office of Admission, Teachers College. In some programs enrollment is limited; thus early application for admission is advisable. Some programs offer partial tuition grants to qualified applicants. Persons interested in learning more about the College's preservice and in-service programs in teacher education should contact Dr. J oann J acullo-N oto, Director, Office of Teacher Education.
$N$ ew York State and $N$ ew York City Certifi-
 Requirements for teaching and administration and supervisory positions vary throughout the country. The completion of a degree does not automatically mean fulfillment of state/city certification requirements in states other than New York. Such requirements are to be taken into consideration during program completion. Test requirements al so vary from state to state.

A passing score on the N ew Y ork State Teacher Certification Examinations (N Y STCE) is required for those wishing N ew York State Certification in secondary academic subjects and in elementary education. All persons applying for N ew York State Certification must have proof of completion of a two-session course providing instruction in the detection and reporting of child and substance abuse. In addition, applicants for New York State Teacher Certification must sat-

## A South Asian Curriculum

One of the major advantages of a Teachers C ollege education is the availability of numerous research opportunities. After taking a course on East Asia that introduced the class to curriculum resources at Columbia Universitys School of International and Public Affairs(SI PA), I became interested in discovering whether a comparable history curriculum on South Asia existed. Recognizing a void, I contacted the Southern Asian Institute at SI PA and managed to join an exciting initiative to create curriculum resources on South Asia for global history teachers. I hope to apply the knowledge and skillsI gained at TeachersC ollege to produce a Web-based curriculum with diverse teaching methods that also have application for the diverse student populations in our nation's schools.

Nadia M. Pervez, Master of Arts in Social Studies Education

isfy qual itative and personal require ments. For permanent certification, applicants must receive a $M$ aster's degree in the field, or a related field in which he or she received a provisional license and complete two years of full time teaching experience on the provisional license. Students desiring to fulfill requirements for teacher certification in states other than N ew York should confer, at an early stage of their study, with the Registrar. Basic information regarding certification in other states is also avail able in the Office of Teacher Education.

For N ew Y ork State certification, the student obtains from and returns to the Registrar the appropriate $N$ ew York State Teacher Certification A pplication form. Students desiring N ew York City licensure as a teacher or administrator should inquire at the N ew York City Board of Education, Division of Personnel, 65 Court Street, Brooklyn, NY 11201, to ascertain specific requirements.

New York State approved teacher education programs are available in: Elementary Education N ursery through G rade 6

- N ursery schools, day-care centers, kindergartens, elementary, and middle schools (ages 2 to 14) through the programs in Curriculum and Teaching
- Art, music, and dance through the programs in the Arts and H umanities in Education
- Teaching of remedial reading and teaching the mentally retarded, physically handi capped, hearing impaired, visually impaired, emotionally disturbed, neurologically impaired through the programs in the Department of H ealth and Behavior Studies

Intermediate or M iddle Schools and Junior and Senior High Schools

- Elementary education for intermediate or middle schools through the programs in Curriculum and Teaching
- Remedial reading through the programs in the Department of $H$ ealth and Behavior Studies
- English, social studies, TESOL, bilingual education, art and music through the programs in the Department of Arts and Humanities
- Physical education through the programs in the Department of Biobehavioral Studies
- M athematics, general science, biology, chemistry, earth science, and physics through the programs in the Department of $M$ athematics, Science and Technology


## Student Teaching and Prerequisites

The student must satisfy certain require ments set by the department in the areas of special ization.


Nadia M. Pervez

## Elementary Childhood Education

Students enrolled in preservice programs in Early Childhood or Elementary Education (preparing for certification in Elementary Education) must take student teaching courses. The program includes all-day and part day student teaching for one or two terms. State regulations require students teach at the lower elementary grade levels ( $\mathrm{K}-3$ ) and at upper elementary grade levels (4-6).


J unior High School and Senior High School Teaching
Before beginning student teaching, students preparing for teaching fields at the secondary level must as a rule have been enrolled at Teachers College for a specified period of time to be determined by the department. Summer attendance may be applied toward this requirement. Because of new N ew York State requirements, many students must have student teaching experience at both the junior high (grades 7-9) and high school (grades 10-12) levels. Some departments require students to complete both placements in the course of one semester, others require two semesters of student teaching, either in the regular terms. In planning programs, students must be prepared to meet the heavy time demands of student teaching in the cooperating schools and in the student teaching seminars. Programs usually require student teachers
(1) to have all mornings (or in some cases all afternoons) free for student teaching throughout the entire A utumn or Spring term, or both terms of the cooperating school and (2) to carry a reduced program (including the credit for the student teaching course) while doing student teaching. M ore specific information is available from each department.

Special Education
Students enrolled in pre-service Special Education programs must take student teaching courses. The programs usually include all-day or part-day student teaching for one or two terms. M ore spe cific information is available in the areas of specialization in the department.

## Procedures for Student Teaching and Field-Based Teaching

Since early arrangements must be made for placing prospective candidates in cooperating schools, students interested in student teaching courses should secure the student teaching application form from the Office of Teacher Education (Box 97) well in advance of the term in which they wish to enroll in student teaching and should request a copy of "Student Teaching Procedures M anual" which lists contact people in individual programs.

## Internships in Elementary Education

In the programs in Curriculum and
Teaching, assistant teachers employed in day-care centers, nursery schools, elementary schools, or middle schools may enter an internship program, substituting their current classroom teaching for supervised student teaching. Interns register for the Preservice Program in Ele-
mentary Education, participate in preservice seminars and receive supervision in their present settings. Openings for assistant teachers are occasionally available through the preservice programs. Interested students should apply to the Director of the Preservice Program in Elementary Education.

## Post-M.A. Supervision Internships

The departments that provide student teaching or internship experience for M aster's degree candidates often employ students who are experienced teachers to assist the departmental coordinator of student teaching and internships. A ppointees hold the rank of part-time instructor. Sal ary and degree credit vary with the extent of responsibilities; in some cases the appointment, in addition to salary, entitles the recipient to some tuition exemption during each term of employment.

## Internships for Prospective College Teachers

M ost of the departments that offer the degree of Doctor of Education in the College Teaching of an A cademic Subject, for which either sal aried full-time teaching experience or an internship is required, can arrange for internships in colleges, including junior and community colleges, within the N ew York metropolitan area. Candidates, who must have completed master's degree require ments and in some cases a second year of rel evant graduate study, should apply to the appropriate program coordinators before A pril 1.

## Teacher Opportunity Corps

The Teacher Opportunity Corps has been established to encourage individuals to prepare to teach in urban settings and to serve the needs of students at risk of dropping out of school. The program emphasizes knowledge of urban schools, effective teaching strategies, and reflection on teaching. Students who are N.Y. State residents, who are not permanently
certified to teach in N.Y. State, and are African-American, Hispanic, $N$ ative American or Alaskan-American are eligible for this program. Those selected for this program are awarded a stipend each semester and are eligible for a variety of academic supports. For more information and application materials contact The Office of Teacher Education, Teacher Opportunity Corps, Teachers College, Columbia University, Box 97, N ew York, NY 10027; tel ephone: (212) 678-3466.

## Peace Corps Fellows Program

Returned Peace Corps volunteers with a strong commitment to teach in the demanding urban environment of N ew York City are placed in full-time, salaried positions in the public schools and attend Teachers Coll ege part-time. The Program, the first of its kind in the United States and now in its second decade, carries a two-year commitment with at least an additional two years of teaching in the city strongly encouraged. The Program is for M aster's D egree (only) candidates in the fol lowing teacher shortage areas: Bilingual (English/Spanish) Education (pre-K -6), M ath or Science (grades 7-12), Special Education (please call for specifics) and ESOL (pre-$\mathrm{K}-12$ ). Anticipated schol arships (partial tuition remission) are competitive. For more information please contact The Peace Corps Fellows Program, Box 90, Teachers College, Columbia University, 525 W est 120th Street, N ew York, NY 10027, telephone 212-678-4080. The Program's W eb site can be accessed at www.tc.columbia.edu/pcfellows.


## Research Fellow ships

The Office of Teacher Education offers a limited number of research fellowships each year to qual ified doctoral students. A pply directly to the Office of Teacher Education, 413 Main H all.

## Visiting Scholars

The privilege of auditing courses, with permission of the instructor, attending open lectures, and on-premise use of the Milbank Memorial Library resources is extended to Teachers College doctoral al umni, to faculty from other colleges and universities, and to other persons with appropriate qual ficications. To be eligible for visiting scholar privileges, an applicant must (1) hold an earned doctorate and (2) be on leave from the employing institution, as attested to by a written statement from an official of that institution.

No official records are maintained and no statement of activities is issued. For the Summer, Fall, and Spring terms, or any portion thereof of these terms, the fee is equival ent to three points of tuition. The fee is waived for Teachers College doctoral alumni.

## Inter-University Doctoral Consortium

 Fully admitted doctoral candidates who find they must supplement remaining course requirements for the degree with up to a maximum of two or three graduate courses offered at another institution which partici pates in the Inter-U niversity Consortium may do so with the prior written permission of the department and the A ssociate Dean of the College.
## Student Life and <br> Student Services

Teachers College participates in the Inter-University Doctoral Consortium which provides for cross-registration among member institutions. Fully admitted doctoral candidates in Teachers College may register for courses at the

Graduate School and University Center of the City University of New York, Fordham University, the N ew School for Social Research, and $N$ ew York University. Ordinarily, such courses must not be available within Columbia University. A pplications are available in the Office of the A ssociate Dean, 113 M ain H all.

Students taking cross-listed courses at another university are subject to the aca demic regulations of the host university, including the grading system, cal endar, and academic honor system. It is the responsibility of the students to familiarize themselves with the pertinent regula tions of the host university. Teachers College students pay tuition to Teachers College for any such courses they take.

Teachers College combines a large number of part-time students who are very much involved in professional education circles with full-time students preparing for careers in education. Part-time students are largely commuters, while fulltime students usually reside on or nearby the campus. Student life and student services are organized to meet the some times separate and different interests of both full-time and part-time students.

Depending on their availability and schedules, Teachers College students can take advantage of an array of activities and services. They include career services, student organizations, student government, fitness and recreation, health services and insurance, and social and cultural activities.

## Career Services Center

The Career Services Center provides matriculants and alumni with the career planning resources requisite to the development and refinement of their job search skills. The resources and services offered by the Center are many and varied.

Individual consultations and group workshops on career planning and job development equip participants with the

## A Highly Diverse Student Population

"T he campus comes alive in Iate afternoon when most classes are scheduled to begin and remains well populated with students and faculty until nine o'clock in the evening. Even though we have a sizable residential population, the C ollege is organized to accommodate a majority of our students who work in full-time positions during the day. M orethan anything, our student body is highly diverse. There is a generous mix of experienced professionals and recent college graduates, a large contingent of foreign students, people of all racial and ethnic backgrounds, some returning after raising a family and others interested in pursuing new careers and stepping up in the ones they have. H ere, differences are what make a difference."

Yvonne K. Destin, Associate Director of Student Life



Yvonne K. Destin
skill sets necessary for a successful job search. Career reference files contain information relevant to the all important research phase of the job search. The Alumni Mentoring Initiative matches matriculants and alumni for networking and information sharing.

Career Services Connection, the job newsletter, lists openings for K-12 administrative and teaching positions as well as positions in higher education administration, college teaching, business and human services.

Employers can interview students and alumni for both internship and full-time positions on-campus at the Center. Corporate recruiting is scheduled in the Fall and Spring semesters. School district recruiting typically occurs in Spring and
includes the annual K-12 Educator's Job Fair in A pril. Recruiting for positions in human services occurs at the Resume and Information Exchange each February.
N ot-for-profit organizations visit the campus in A pril for the Columbia University sponsored N ot-for-Profit J ob Fair. Additionally, students can visit the Career Services Centers of Columbia U niversity and other peer institutions to broaden their job searches. The Center al so publishes sel ected résumé books to market the capabilities of the Teachers College student population to prospective employers.

## Student Life Center

The Student Life Center includes four major areas: Disability Services, H ealth and Recreation, International Student and Scholar Services, and Student Activities. Through the promotion of social, cultural, co-curricular, recreational and professional programs, the center seeks to build community, celebrate diversity, devel op leadership, and foster heal thy living.

## Student Organizations

Student organizations enrich campus life with a focus on social, cultural, academic, and professional areas and networking among students with common interests. Among them are:

- Black Student N etwork
- Diversity Task Force
- Green Education Organization
- K appa Delta Phi, a national honor society
- K orean G raduate Student A ssociation
- Lesbian, Bisexual, Gay and Transgender Community
- Professional Counseling A ssociation
- Society for H uman Resource Management
- Society for International Education
- Soka Gakkai International-USA
- Student Dance Education Organization
- Voice Off

The Teachers College Student Senate represents the student body with elected representatives of the various departments. Serving as the advocate for students on campus, the Senate responsibilities include engaging in and influencing Col-lege-wide decision-making, facilitating College-wide communications with students, and identifying common problems that students may encounter and working on practical solutions.

International Student and Scholar Services
Teachers College has a long history of wel coming international students to our academic and social community. Currently, about 400 students from 70 countries are enrolled at all degree levels and in every department. International Student and Scholar Services (ISS) provides orientation and intercultural programs;

Equal Access for Students with Disabilities
"Teachers Coll ege strives to be responsive to both the letter and spirit of the Americans with D isabilities Act and provide a wide range of individual services for students with different disabilities. Services that deaf students request include sign language interpretation and notetaking. Blind students may be assised by readers and rescarch assistants and a variety of alternative formats to acceess the printed word. Students with physical di sabilities have access to campus facilities al ong with a variety of low-tech and high-tech support services. We support students with learning disabilities with strategies to manage reading and writing tasks along with individualized testing accommodations. O ur aim is to ensure equal access for students with disabilities to all Teachers Coll lege academic programs and events. As a colleague with a di sability, I hope that students find our office empowering yet sensitive."

Richard Keller, Director, Office of Access and Services for Individuals with Disabilities

advice on responsibilities, benefits and alternatives under Immigration Iaws and regulations; and counsel on personal, financial, cultural, academic and other concerns. The International Student Advisor al so assists students in contacting campus and community resources when it is appropriate. The office is located in 5L W hittier H all; telephone (212) 678-3406.

## Individuals with Disabilities

Programs and services have been developed to ensure that the higher education environments at Teachers College are physically, programmatically, and attitudinally accessible to individuals with such disabilities as vision, hearing, or mobility impairments, medical conditions such as diabetes, cancer, or heart disease, or a learning disability that affects one or more academic activities. Limited parking is available for individuals with disabilities. A full-time Director of Access and Services for Individuals with Disabilities and assistants are available to counsel students, arrange accommodations, and advocate on behalf of students with disabilities. For more information call 212-678-3744.

## Recreation and Fitness

Directly across the street from Teachers College is the Columbia U niversity M arcellus H artley D odge Physical Fitness Center, an indoor sports and exercise facility open to our students. The center features two full-size gymnasiums, a swimming pool, 16 squash and handball courts, fully equipped exercise and weight rooms, a judo-karate room, fencing room, wrestling room, indoor track, and two saunas. In addition, there are three tennis courts located on the M orningside H eights campus. Teachers College also houses its own swimming pool for student and faculty use.

## Health Service and Student Medical Insurance

Primary care, women's health, counseling, travel, health education and wellness services are offered free or at a nominal charge to students who have paid the H eal th Service fee. The fee is mandatory for all full-time students and all students living in college residence halls. W hen hospital care is necessary, most costs are defrayed by a student medical insurance program avai lable through Teachers College. Information in available from the Student Life Center.


Richard Keller

## Immunization

N ew York State requires that all students born on or after January 1, 1957 provide proof of immunity to measles, mumps, and rubella. Hepatitis B and DPT are strongly recommended, as well as results of a current PPD test for tuberculosis. The PPD is required for practice teachers.

## Other Services

Other services available to students include the Teachers College B ookstore, Teachers College Cafeteria, Information Desk, Psychological Counseling Services, the Rita Gold Center for Infants and Parents, Office of Ombudsman, ATM and postage machines.

Faculty Members and College Officials

64 Faculty
86 Special Term Fac ulty
96 Officers Not In Active Service
98 Trustees and Officers

Current as of July, 2001

## Harold F. Abeles

P rofessor of M usic Education
Department of Arts and H umanities
B.S., M.S., U niversity of Connecticut; Ph.D., U niversity of M aryland
Scholarly Interests: A ssessment in arts pedagogy. A ssessment of arts partnership programs. Technology in music education. Research strategies in arts pedagogy.
Selected Publications:
Foundations of Music Education (Schirmer B ooks). "The sexstereotyping of music instruments" (J ournal of Research in M usic E ducation). "Different criteria for evaluating applied music instruction" (T he Quarterly Journal of M usic Teaching and L errning). "Assessing arts partnerships: Learning in and through the arts" (H andbook of Reeearch on M usic Teaching and Learning II).

## J ames Albright

A ssistant Professor of English
Education
Department of Arts and Humanities
B.A., Trent University; B.Ed., Dal housie University;
M.A.Ed., M ount Saint Vincent University; Ph.D., The Pennsylvania State U niversity
Scholarly Interests:
Rethinking English as literacy education. Researching literate identities from critical and cultural studies perspectives. Emerging technologically related literacies. The reflexive sociology of Pierre Bourdieu.
Selected Publications: "Backing Out of the Room" (E nglish Quartely). "Disrupting Stephen King" (R eading Stephen King). "Oracy, critical theory, and secondary English education" (C ontemporary Issues in Canadian Secondary English).
"Bearing witness: A discussion of texts, lies, and videotape" (E ducational Researcher). "W orking the teacher: A case study in the politics of pedagogy" (Teaching Education).

## J ohn P. Allegrante

Professor of H ealth Education Department of H ealth and Behavior Studies
B.S., State U niversity of N ew

York at Cortland; M.S., Ph.D., University of Illinois

Sch OLARLY Interests: H eal th education in multiple settings. Interdisciplinary research. H ealth policy International health.
Selected Publications: Investing in E mpl oyeeH ealth (J ossey-Bass). "W hen health policy becomes victim blaming" (N ew England Journal of M edicine). "The President's Committee on H ealth Education: A 20-year retrospective on its politics and policy impact" (A merican Journal of Public H ealth). "H ealth Educa tion Intervention Strategies: Recommendations for Future Research" (H ealth Education Quarterly). "Can net-present value economic theory be used to explain and change heal threl ated behaviors" (H ealth Education R esearch).

## Gregory M. Anderson

A ssistant P rofessor of Education Department of Organization and Leadership
B.A., M.A., University of Toronto; Ph.D., City University of N ew York; M inority Postdoctoral Fellow, Teachers College, Columbia University
Scholarly Interests: US higher education policy and reform. Higher education in South A frica. Remediation and academic devel opment.
Selected Publications: Building a People's U niversity in South A frica: R ace, C ompensatory Education and the Limits of D emocratic R form (Peter Lang, in press). "R acial identity, the aparthed state and the limits of


Gregory M. Anderson
Assistant Professor of Education
political mobilization in South A frica: The case of theU niversity of the W estern C ape" (I dentity: A n International Journal of Theory and Research, in press). "A ccess to higher education" (H igher Education in the U nited States: A $n$ Encyclopedia, in press).

## O. Roger Anderson

Professor of $N$ atural Sciences and Chair of the Department of $M$ athematics, Science and Technol ogy A.B., M .Ed., Ed.D., W ashington University
Scholarly Interests:
N eurocognitive theory applied to science learning. Electron microscopic and physiological ecological studies of eukaryotic microbiota.

Selected Publications: Comparative P rotozool ogy: Ecology, Physiology, L ifeH istory (Springer-Verlag). Teaching and Learning of Biology in the U nited States (N ational Science Teachers A ssociation). "N eurocognitive models of information processing and knowledge acquisition" (P rogress in Sensory Physiology). "A neurocognitive and philosophical perspective on current learning theory and science instructional strategies" (Science Education).

## Darlyne Bailey

Vice President for A cademic A ffairs and $D$ ean, beginning Spring 2002
Professor, Department of Organization and Leadership
A.B., Lafayette College; M.S., Columbia U niversity, Certificate of Psychoanal ytic Psychotherapy, Lenox H ill H ospital Program; Ph.D., Case W estern Reserve U niversity
Scholarly Interests:
Organizational leadership. Organizational change. Interorganizational relations. M ulticultural ism. Interprofessi onal ism.
Selected Publications:
$M$ anaging Human Resources in theH uman Service, Oxford University Press; Strategic Alliances A mong $H$ ealth and $H$ uman Services Organizations: F rom A ffiliations to C onsol idations, Sage Publications; The Integration of M ulticultural Competency and Organizational Practice in Social W ork Education, in press; Evidence $B$ ased Social Work Practice in an Interprofessional World, in press.

## Thomas R. Bailey

Professor of E conomics and Education
Department of International and Transcultural Studies A.B., H arvard U niversity; Ph.D., M assachusetts Institute of Technology
Scholarly Interests: Labor and education policy.

Selected Publications:
The D oubleH elix of Education and the E conomy (Institute for Education and the Economy, Teachers College). Employee Training and US Competitiveness: Lessons for the 1990's (W estview). C hanges in the $N$ ature and Structure of W ork: Implications for Skills and Skill F ormation (N ational Center for Education and Employment, Teachers College). Learning to W ork: E mployer I nvol vement in School-toW ork Transition Progress (Brookings Institution).

## William J. Baldw in

A ssociate D ean of Teachers College and A ssociate Professor of Education
A.B., Villanova U niversity; M.A., University of Toledo; Ed.M., Ed.D., Teachers College, Columbia U niversity
Scholarly Interests: College and university administration. Financing higher education. Technology in higher education. Institutional research and planning.

Angela Calabrese Barton
A ssociate Professor of Science
Education
B.S., U niversity of $N$ otre Dame; Ph.D., Michigan State University
Scholarly Interests: Science education and urban issues. Teacher research and critical/feminist curriculum theory.
Selected Publications:
Feminist Sadence Education (Teachers Coll ege Press). "Critical ethnography: Science education in urban settings: Seeking new ways of praxis through critical ethnography." (J ournal of Research in Science Teaching).
"Autobiography in science education: Greater objectivity through local knowledge." (Research in Science Education).
"Learning to Teach a M ulticultural Science Education through Service Learning: A Case Study." (J ournal of Teacher Education).

## Charles E. Basch

Professor of $H$ ealth Education and Chair of the $D$ epartment of $H$ ealth and B ehavior Studies
Department of H ealth and Behavior Studies B.S., M.S., State University of New York at Brockport; Ph.D., Southern Illinois U niversity
Scholarly Interests: Behavioral epidemiology. Health education program planning and evaluation. Urban and minority populations.


Charles E. Basch
Professor of Health Education

Selected Publications:
"The effect of health education on the rate of ophthalmic examinations among A fricanAmericans with di abetes mellitus" (A merican Journal of Public H ealth). "U sing the tel ephone as a medium for health education" (H elth Education Quartely). "Promoting the selection of low-fat milk in elementary school cafeterias in an innercity Latino community: Evaluation of an intervention" (A merican Journal of Public H ealth). "The W ashington H eights-Inwood H eal thy H eart Program: A 6-year report from a disadvantaged urban setting" (A merican J ournal of Public H walth). "Preventing AIDS through education: Concepts, strategies and research priorities" (J ournal of School H ealth).

## Leslie M. Beebe

Professor of Linguistics and Education
Department of Arts and Humanities
B.A., Colorado College;

M .A.T., R eed College; M .A., Ph.D., University of Michigan
Scholarly Interests: Applied Linguistics. Sociolinguistics and second language acquisition. Rude speech and social rules of speaking.

Selected Publications: I ssues in Second Language A cquisition: M ultiple Perspectives (H arper and Row). English in the Cross-Cultural Era: Social Rules of Speaking and TESOL (Simul Press). "Risk-taking and the language learner" (Classroom Oriented Research in Second L anguage $A$ cquisition). "Sociol inguistic variation and style shifting: Chastisement and disagreement" (L anguage L earning).

## Ruth Michele Bereson

A ssistant Professor of Practice in
Arts A dministration and A ssociate
D irector of the P rogram in A rts
Administration
Department of Arts and Humanities
B.A., University of M elbourne;

DIP. in French Language \&
Civilization, Sorbonne, Paris;
Ph.D., The City U niversity, London
Scholarly Interests: Arts management. Arts policy. Cultural policy. Artistic integrity.
Selected Publications: "W hat's for sale?: An analysis of the meaning of 'Cultural Industries' and their relation, in any, to the arts" (SCOS C onference A thens). "The Effective Implementation of Cultural Policy in Singapore" (Sixth International Conference on A rts M anagement). The Operatic State: Cultural Policy and the Opera H ouse (R outledge, forthcoming). Ed. Artistic Integrity and Social Responsibility: You Can't
Please Everyone! (Ethos B ooks).

## J ohn B. Black

Professor of Computing and Education
Department of H uman
D evelopment
B.S., M assachusetts Institute of Technology; Ph.D., Stanford University
Scholarly Interests: Cognition and neural network models of understanding, learning and memory. Using cognitive and neural net mod-
els to design learning environments. Effects of using various technologies on cognition.
Selected Publications:
Cognition, Computing and Cooperation (A blex). K nowledge Structures (A blex). "A nal og imagery in mental reasoning; depictive models" (C ognitive Science).
"Shuttling between depictive models and abstract rules" (Cognitive Science).

## Caryn J. Block

A ssociate P rofessor of P sychology and Education
Department of Organization and Leadership
B.S., University of Illinois; M.A., Ph.D., N ew York University
Scholarly Interests:
Gender and racial issues in the workplace. M otivation and performance.
Selected Publications: "W hite racial identity and theory: A framework for understanding reactions toward interracial situations in organizations" (J ournal of Vocational B ehavior). "Presumed incompetent? Stigmatization and affirmative action efforts" (| ournal of A ppli ed P sychology). "W hite racial identity attitude theories: A rose by any other name is still a rose" (TheCounsel ing P sychologist). "The affirmative action stigma of incompetence: Effects of performance information ambiguity" (A cademy of $M$ anagement Journal).

## George A. Bonanno

A ssistant Professor of P sychology and Education
Department of Counseling and Clinical Psychology
B.A., H ampshire College; Ph.D., Yale U niversity
Scholarly Interests: Coping with grief and trauma. Emotion and emotion regula tion. The adaptive consequences of self-deception.
Selected Publications: "W hen avoiding unpleasant emotions might not be such a bad thing: Verbal-autonomic


George A. Bonanno
Assistant Professor of Psychology and Education
response dissociation and midlife conjugal bereavement" (J ournal of Personality and Social Psychol ogy, vol. 69). "Facial expressions of emotion and the course of conjugal bereavement" (J ournal of A bnormal Psychology, vol. 106). "Toward an integrative perspective on bereavement" (Psychological Bulletin, vol. 125). "W hen children tell their friends they have AIDS: Possible consequences for psychological well-being and disease progression" (P sychosomatic M ediane, 62, 238-247).

## George C. Bond

William F. Russell Professor in the F oundations of Education D epartment of $M$ athematics, Science and Technology B.A., Boston U niversity; M.A., Ph.D., London School of Economics
Scholarly Interests: Education and elite formation in the U nited States and A frica. A frican studies. A frican religions and politics. A grarian transformations. Cultural dimensions of urban and minority populations.
Selected Publications: ThePolitics of Changein a Zambian Community (Chicago University Press). A frican C hristianity (A cademic Press). The Social Construction of the Past
(R outledge). A ID S in A frica and theC aribbean (W estview).

## J ames H. B orland

A ssociate P rofessor of Education and Chair of the D epartment of Curriculum and Teaching B.A., Johns H opkins University; M.S., Clarion State College; Ph.D., Teachers College, Columbia U niversity

Scholarly Interests: Education of gifted students. Economically disadvantaged gifted students. Conceptions of giftedness.
Selected Publications: Planning and Implementing Programs for the G ifted (Teachers
College Press). Rehinking G ifted Education (Teachers College Press). "Gifted education and the threat of irrelevance" (J ournal for the Education of the G ifted). "Identifying young, potentially gifted, economically disadvantaged students" (G ifted Child Quarterly). "The construct of giftedness" (P eabody Journal of Education).

## J udith Berman Brandenburg

Professor of P sychology and Education
Department of Counseling and Clinical Psychology
B.S., Cornell University;
M.A.T., H arvard University; Ph.D. (honors), N ew York University
Scholarly Interests: Gender issues in education, workplace, and psychology. Psychology of the undergraduate. A cademic administration. Professional and ethical issues for counsel ors. Sexual harassment.

## Selected Publications:

Confronting Sexual H arassment: What Schools and Colleges C an D o (Teachers College Press). $W$ omen and $M$ en in $Y$ ale College M ajors and Educational A spirations (Yale U niversity). "Sexual harassment: A challenge to schools of education" (A merican A ssociation of C olleges for Teacher Education). "The needs of women returning to school" (Personal and G uidance Journal).


Marla R. Brassard
Associate Professor of Psychology and Education

## Marla R. Brassard

A ssociate P rofessor of P sychology and Education Department of H ealth and Behavior Studies
B.A., W hitworth College;

Ph.D., Teachers College,
Columbia U niversity
Scholarly Interests:
Parent-child relations. Crime and violence in schools. Psychological maltreatment of children.

Selected Publications: "Psychological M altreatment" (A PSAC H andbook on Child M altreatment). "The Psychological M altreatment R ating
Scales" (Child A buse and N eglect). "W hat can children expect? Protecting and nurturing children in school and community contexts" (School Psychol ogy R eview).

## J eanne Brooks-Gunn

Virginia and Leonard M arx Professor of Child and Parent D evelopment and Education
Department of H uman D evelopment
B.A., Connecticut College; M .Ed., H arvard U niversity; Ph.D., University of Pennsylvania

Scholarly Interests:
Early development and education of young children and their families. Children and family policy and programs. Growing up female.
Selected Publications: Conflict and cohesion in families (ed. with M. Cox). N eighborhood Poverty: Context and C onsequences for Children. Six Studies of Children in Families in N éghborhoods, (Volume 1). C onceptual, M ehodological, and Policy A pproaches to Studying $N$ eighborhoods, (Volume 2) (Russell Sage Foundation Press). Consequences of G rowing U p P oor. (Russell
Sage Foundation Press). A dolescent $M$ others in L ater Life (Cambridge University Press). Escape from Poverty: W hat M akes a D ifferencefor Children (Cambridge University Press). Encyclopedia of A dolescence (T hree volumes) (G arland).

## J ohn M. Broughton

A ssodate P rofessor of P sychology and Education
D epartment of Arts and Humanities
B.A., M.A., Cambridge U niversity; Ph.D., H arvard U niversity

Scholarly Interests:
Cultural studies. Education and violence. M asculinity and war. Unconscious fantasies about technology. Youth subcultures. Cinema as educator. Social theory and ideology.

Selected Publications: Critical Theories of Psychological D evd opment (Plenum Press). "Smart weapons and military TV" (Technoscience and C yberculture). "The experience of the father" (Insights). "H ollywood ultraviolence as educator" (P sychoanalysis and Education).

## W. Warner Burke

Professor of P sychology and
Education
Department of Organization and Leadership
B.A., Furman University;
M.A., Ph.D., University of Texas

W. W arner B urke

Professor of Psychology and Education

Scholarly Interests: Organizational change. Leader and manager competencies. Self-awareness and performance.

Selected Publications: Organization D evdopment: A Process of L earning and Change (Addison-W esley). Organization D evdopment: Principles and Practices (H arper Collins). "Leadership Devel opment" (W hat W orks: Training and D eve opment Pradices). "Organization change: W hat we know, what we need to know" (J ournal of M anagement Inquiry). Business Climate Shifts (Butterworth H eineman).

## J udith M. Burton

Professor of A rt Education
Department of Arts and H umanities
A cademic Diploma, U niversity of London; M .Ed., U niversity of $M$ anchester; Ed.D., H arvard University
Scholarly Interests: Artistic-aesthetic devel opment in children and adolescents. Gender bias in representation of subject matter. A esthetic responses of adolescents to mature works of art. R ole of artists in the education of children.

## Selected Publications:

"N atural allies: Children, teachers and artists" (B eyond Enrichment, A CA ). "The arts in school reform: Other conversations" (Teachers C ollege R ecord).
"Trends and issues in visual art education curriculum" (Visual A rts Resource H andbook). "Art education and the plight of the culture" (A rt Education in the U nited States of A merica,
H ochscule D er K uenste).

## Lucy McCormick Calkins

Professor of English Education Department of Curriculum and Teaching
B.A., W illiams College; M .A., University of H artford; Ph.D., N ew York University
Scholarly Interests:
Teaching of reading and writing. Reforming schools.
Selected Publications: TheA rt of Teaching Reading (A ddison W esley Longman). TheA rt of Teaching Writing (H einemann). Lessons F rom a Child (H einemann). A Teacher's Guide to Standardized Reading Tests: K now ledge is P ow er (H einemann). Raising Lifdong Learners: A Parent's G uide (Addison-W esley).

## Robert T. Carter

Professor of $P$ sychology and Education
B.A., Columbia University; Ed.M., Teachers College, Columbia U niversity; Ph.D., University of $M$ aryland

Scholarly Interests: Multicultural education. R ace and racial identity. Cross-cultural psychology. Career development. Gender issues. Psychotherapy process, race and legal issues

## Selected Publications:

 TheInfluence of Race and Racial Identity in P sychotherapy: Tow ard a racially inclusive mode (W iley). R acial I dentity T heory: A pplications to Individuals, Groups and Organizations (Earlbaum). A ddressing cultural issues in organizations: B eyond the corporate context (Sage). M ulticultural C ounsel ing Competencies (Sage)."R acial identity and education" (R eview of Research in Education).


M adhabi Chatterji
Associate Professor of M easurement,
Evaluation, and Education

## Madhabi Chatterji

A ssociate P rofessor of $M$ easure ment, Evaluation, and Education Department of H uman D evelopment
B.Sc., Lady Brabourne College, U niversity of Calcutta; B.Ed. (India), U niversity of Bombay; M .Ed. (India), Christopher's College, U niversity of M adras; (India), Ph.D., University of South Florida

Scholarly Interests:
Program evaluation design. Survey methodology. Instrument design and validation using classical and Rasch measurement. Classroom assessment (traditional and performance assessments).

Selected Publications: "Construct validity of mea sures/scores of mathematics assessment using classical and many-facet $R$ asch measure ment" (Journal of A pplied M exsurement). "H epatitis B virus infection and vaccine acceptance among university students" (A merican Journal of Health and Behavior). "Validation of scores/measures from a K-2 developmental assessment in mathematics" (E ducational and P sychological M easurement). "A study of the effects of an inclusion program of elementary students with specific learning disabilities" (Journal of Learning D isabilities).

Peter T. Coleman
A ssistant Professor of P syuchol ogy and E ducation and D irector of International C enter for C ooperation and C onflict Resolution
(ICCCR)
Department of Organization and Leadership
B.A., University of Iowa;

Ph.D., Teachers College
Scholarly Interests:
Dr. Coleman's research agenda focuses on the development of theory and intervention strategies that foster constructive social change and social justice. H e is currently conducting research in four related areas: individual and social factors that facilitate the constructive use of social power; fostering ripeness in seemingly intractable conflict; conflict resolution training evaluation; and conflict resolution and difference.

Selected Publications: "The M ediation of Inter-ethnic Conflict in Schools" (Toward a Common Destiny: Improving R ace and E thnic R dations in A merica, Jossey-Bass). "R edefining Ripeness: A Social-Psychological Perspective" (P eace and Conflid: J ournal of Peace P sychology, Lawrence Erlbaum Associates). "Introducing cooperation and conflict resolution into schools: A systems approach" ( P eace, C onflict and Violence: Peace P sychology for the 21st Century, Prentice H all). TheH andbook of C onstructive C onflict Resol ution: T heory and Practice (J osseyBass). "Power and conflict" (TheH andbook of Constructive Conflict Resol ution: Theory and Practice, J ossey-Bass).
"I ntractable conflict" (T he H andbook of C onstructive C onflict Resolution: T heory and Practice, J ossey-Bass).

## Lambros Comitas

G ardner Cow les Professor of A nthropology and Education Department of International and Transcultural Studies A.B., Ph.D., Columbia University

Scholarly Interests:
Sociocultural change. Education in the developing world. Drugs and society. Caribbean. Migration studies.
Selected Publications:
TheC ompleteC aribbeana 1900-1975: A Bibliographic G uide to the Scholarly Literature (4 vols., K raus Thomson). Ganja in Jamaica: A M edical A nthropol ogical Study of Chronic $M$ arihuana $U$ se (M outon). West Indian Perspectives (4 vols., A nchor Press/D oubleday). Interdisciplinary Research and D octoral Training: A Study of the Link_ping U niversity (Sweden) Tema D epartments (Swedish $N$ ational Board of Universities and Colleges).

## M adonna G. Constantine

A ssodiate Professor of P sychology and Education and Chair of the D epartment of Counseling and Clinical Psychology
Department of Counseling and Clinical Psychology B.S., X avier University of Louisiana; M .A., X avier U niversity of Louisiana; Ph.D., University of Memphis

Scholarly Interests: Multicultural issues in counseling, training, and supervision. Professional development issues, particularly issues concerning predoctoral internship training and people of col or. Vocational and psychological issues of underserved populations.
Selected Publications: "Social desirability attitudes, sex, and affective and cognitive empathy as predictors of selfreported multicultural counseling competence" (T heC ounseling P sychologist). "Self-report multicultural counseling competence scal es: Their relation to social desirability attitudes and multicultural case conceptualization ability"(J ournal of Counseling P sychology). "Addressing spiritual and religious issues in counseling A frican Americans: Implications for counsel or training and practice" (C ounseing and Values).

## Isobel Contento

M ary Swartz R ose P rofessor of Nutrition and Education Department of H ealth and Behavior Studies
B.Sc., University of Edinburgh; M.A., Ph.D., University of California at Berkeley
Scholarly Interests:
Psychosocial factors influencing food choice, particularly among children and adolescents.


M adonna G. Constantine
Associate Professor of Psychology and Education


Isobel Contento
M ary Sw artz Rose Professor of Nutrition and Education

N utrition education guidelines and curriculum development. Behavioral aspects of dietary assessments.
Selected Publications: "Cognitive, motivational, social and environmental influences on children's food choices" (H ealth P sychology). "Food choice criteria of adolescents: R ole of weight and dieting status" (A ppeite). "Effectiveness of nutrition education and implications for nutrition education policy, programs and research: A review of research" (| ournal of N utrition Education). "Adolescents' perspectives and food choice behaviors in relation to the environmental impacts of food
production practices" (Journal of N utrition Education).

## J ames E. Corter

A ssociateP rofessor of Statistics and
Education and C hair of the
D epartment of $H$ uman $D$ evel opment
B.A., University of N orth

Carolina; Ph.D., Stanford
University
Scholarly Interests: Computational models of human learning and categorization. Statistics expertise and probability problem-solving. Judgment and decision making. Clustering and scaling methods for multivariate data.

Selected Publications:
"An efficient metric combinatorial algorithm for fitting additive trees" (M ultivariate B dhavioral Research). TreM odds of Similarity and A ssociation (Sage). "U sing clustering methods to explore the structure of diagnostic tests" (C ognitively D iagnostic A ssessment). "Explaining basic categories: Feature predictability and information" (Psychol ogi cal B ull ein).

## M argaret Smith Crocco

A ssodiate P rofessor of Social
Studies and Education
D epartment of Arts and
Humanities
B.A., Georgetown U niversity; Ph.D., University of Pennsylvania
Scholarly Interests:
Diversity issues in social studies education. Citizenship education, social studies, and the origins of black colleges and universities. W omen's history.
Selected Publications: "B ending the F utureto $T$ her Will": Civic W omen, Social Education, and D emocracy (Rowman and Littlefield). Pedagogies of Resistance W omen Educator A divists 1880-1960 (Teachers College Press). "M ary Ritter Beard and $M$ arion Thompson W right: Shaping inclusive social education" (T heory and Research in Social Education). Reclaiming Lost G round: The Struggle for W oman Suffrage in $N$ en J ersey (The N ew Jersey Historical Commission).

## Lori A. Custodero

A ssistant Professor of M usic Education
Department of Arts and Humanities
Bachelor of M usic, U niversity of Redlands; M.A., California State University; D.M.A., U niversity of Southern California
Scholarly Interests: Music in the lives of children and families. Contextual influences on music learning. Musical engagement and development.

Selected Publications:
"Observing flow in young people's music learning" (G eneral M usic Today). "Context and discovery: Rethinking the N ature of creativity" (TheOrff Echo).
"M usic for everyone: Creating context of possibility in early childhood education (Early Childhood C onnections).

## Leo-Paul Cyr

A ssistant Professor of A rt
Education
Department of Arts and Humanities
B.E.E., B.A. U niversity of M oncton (Canada); M.A.A.E. $N$ ova Scotia College of Art and Design (Canada); Ed.D. Teachers College, Columbia University

## Scholarly Interests:

The silent dialogue in making art. The role of things in artistic creation. The layering of experience while learning about a self/other relationship with the world.

Selected Publications:
"Art, Power and Access"
(N SCAD Papers in Art Education). "N urturing Development: Presence and Atmosphere for Learning" (T he Canadian Sociedy for Education Through A rt J ournal). "W hat can we Learn from a Stone?" (F orthcoming)


Law rence T. DeCarlo
Assistant Professor of Psychology and Education

## Law rence T. DeCarlo

A ssistant Professor of P sychology and Education
Department of H uman Development
B.A., SUN Y at Stony Brook;

M .A., Boston University; M.S., Columbia U niversity; Ph.D., SUN Y at Stony Brook
Scholarly Interests:
Statistical modeling of psychological processes, measurement, latent class analysis, categorical data analysis, structural equation modeling, multilevel and longitudinal data analysis, item response theory.

Selected Publications: "Signal detection theory and generalized linear models" (Psychological M ehods). "On the meaning and use of kurtosis" (P sychological M ethods). "A nalysis and class validation of a measure of parental val ues perceived by early adol escents: An application of a latent class model for rankings" (Educational and Psychol ogical $M$ easurement).

## Ronald E. DeM eersman

Professor of A pplied Physiology and Education
Department of Biobehavioral Studies
B.S., M.S., University of U tah; Ph.D., Indiana U niversity
Scholarly Interests:
M odulators of autonomic outflow. Frequency domain analyses. N on-invasive assessment of physiologic data.
Selected Publications:
"Influence of respiration on metabolic, hemodynamic, psychometric, and R-R Interval Spectral Parameters" (A merican Journal of Physiology). "Vagal Withdrawal as a function of audience" (A merican Journal of Physiology). "D eriving respira tion from Pulse W ave: A new signal-processing technique" (A merican J ournal of Physiology). "Effect of provocative maneuvers on heart rate variability in subjects with paraplegia" (A merican Journal of Physiology).
"Estrogen and vascular stiffness" (A merican Journal of Physiology).

## Kevin J. Dougherty

A ssociate P rofessor of H igher Education and Senior Research A ssociate, C ommunity Coll ege Research C enter
Department of Organization and Leadership
B.A., W ashington University;

M .A., H arvard U niversity;
Ph.D., H arvard University
Scholarly Interests:
The community college. The economic devel opment role of higher education. Higher education policymaking. K - 12 educational reform. Sociology of education.

Selected Publications
"The contradictory college: The conflicting origins, impacts and futures of community college" (StateU niversity of N ew York Press). "The evolving role of the community college: Policy issues and research questions" (H igher Education: H andbook of T heory and Research, A gathon) "Educational organization" (with Floyd H ammack, The Encyclopedia of Sociology). "Community colleges and contract training" (Teachers C ol lege R ecord). "M ass higher education: $W$ hat is its impetus? W hat is its impact?" (Teachers Coll ege Record).
"Opportunity to learn standards: A sociological critique" (Sociology of Education) "Minerva and the market: The sources of the movement for school choice," (with Lizabeth Sostre, Educational Policy).

Clea Fernandez
Assistant Professor of Psychology and Education

## Barry A. Farber

Professor of P sychology and
Education
Department of Counseling and Clinical Psychology
B.A., Queens College of the City U niversity of N ew York;
M.A., Teachers College,

Columbia U niversity; Ph.D., YaleUniversity

Scholarly Interests:
Psychotherapy research. Selfdisclosure. Burn-out in teaching and the hel ping professions.

Selected Publications:
The P sychotherapy of Carl Rogers (Guilford). Crisis in A merican Education: Stress and Burnout in the A merican Teacher (J osseyBass). "Gender and representation in psychotherapy" (Psychotherapy). "The therapist as attachment figure" (P sychotherapy). "Disclosure to therapists: W hat is and is not discussed in psychotherapy" (J ournal of Clinical Psychology)

## Clea Fernandez

A ssistant Professor of Psychology and Education
Department of H uman
Development
B.A., Barnard College; Ph.D., University of Chicago
Scholarly Interests: The analysis of classroom processes with a special emphasis on cross-cultural comparisons. The psychology of learning from instruction and Teachers' theories of instruction and teacher development.


Selected Publications:
"J apanese and A merican teachers' evaluations of mathematics lessons: A new technique for exploring beliefs" () ournal of $M$ athematical Behavior). "Cultures of mathematics instruction in Japanese and American elementary classrooms" (in Teaching and Learning in J apan, Cambridge University Press).
"Traditions of school mathe matics in J apanese and A merican elementary classrooms" (Theories of $M$ athematical L errning, Lawrence Erlbaum A ssociates). "Learning mathematics from classroom instruction: On relating lessons to pupils' interpretations" () ournal of the L errning Sciences).

## Beth A. Ferri

A ssistant P rofessor of Education Department of Curriculum and Teaching
B.S., Edinboro University of PennsyIvania; M.Ed., Slippery Rock University of Pennsylvania; Ph.D., University of Georgia

Scholarly Interests: Disability studies. Learning disabilities. Social foundations of education. Constructivist methods. Inclusive education. W omen with di sabilities. Feminist and critical pedagogies. Qual itative, participatory, and interdisciplinary research methods. N arrative.

Selected Publications: "Teachers with LD A view from both sides of the desk" (J ournal of Learning Disabilites). "Paradigms: A need for radical reform" (A dults with L earning D isabilities: Theoretical and Practical Perspectives). "W omen with disabilities: M issing voices" (W omen's Studies International Forum). "The hidden cost of difference: W omen with learning disabilities" (Learning D isabilities: A M ultidi sciplinary J ournal). "Profiles of college students demonstrating learning disabilities with and without giftedness" (J ournal of Learning D isabilities).

## V.P. Franklin

Professor of H istory and Education
Department of Arts and H umanities
B.A., Pennsylvania State University
M .A.T., H arvard U niversity Ph.D., U niversity of Chicago
Scholarly Interests:
History of A frican American education. U rban educational history. Student culture and student activism.

Selected Publications:
"M y Soul Is A Witness": A Chronology of the Civil Rights Era, 1954-1965 (H enry Holt). Sisters in the Struggle A frican A merican W omen in the Civil Rights-B lack Powe M ovement ( N ew York University Press). Living Our Stories, Telling Our Truths: A utobiography and $M$ aking of the A frican-A merican Inteletual Tradition (Oxford University Press). The Education of Black Philadd phia: A Social and Educational History of a M inority Community, 1900-1950 (University of Pennsylvania Press). "Vindicating the race: Contributions to the A frican-A merican intellectual tradition" (The Journal of N egro H istory).

## Celia Genish

Professor of Education Department of Curriculum and Teaching
B.A., Barnard College; M.A.T., H arvard U niversity; Ph.D. University of California at Berkeley
Scholarly Interests: Early childhood education. Language in the classroom. Qualitative research. Childhood bilingualism.

## Selected Publications:

 Ways of A ssessing Children and Curriculum: Stories of Early C hildhood Practice (Teachers College Press). TheN eed for Story: Cultural D iversity in Classroom and Community (N ational Council of Teachers of English). "Talking their way into print: English language learners in a pre-kindergarten classroom" (B eginning Readingand W riting). "Teaching in early childhood education: U nderstanding practices through research and theory" (H andbook of Research on Teaching, 4th ed.).

## Michelle Genor

A ssistant Professor of Education Department of Curriculum and Teaching
B.A., M.A., University of St.

Thomas; C.A.S. in Learning and Teaching, $H$ arvard U niversity; Ph.D. University of Wisconson
Scholarly Interests: Teacher education. Learning communities. Social theories of learning. Action research. M ulticultural education. U rban schools. Professional development. School and University partnerships. Reflective practice. Supervision. Portfolios/ Performance assessment.

Selected Publications:
"The Island of A nyplace Teacher's Guide: Supplemental Curriculum Guide to the American Repertory Theatre's Performance"

## Antoinette M. Gentile

Professor of P sychol ogy and
Education
Department of Biobehavioral Studies
B.S., Brooklyn College of the City U niversity of N ew York; M.S., P.E.D., Indiana University; Ph.D., State U niversity of N ew York at Stony Brook


Antoinette M. Gentile
Professor of Psychology and Education

Scholarly Interests:
M otor learning and development. N euromotor control processes. R ehabilitative strategies.

Selected Publications:
"Skill acquisition: action, movement and neuromotor processes" (M ovement Sciences: Foundation for $R$ ehabilitation in Physical Therapy, 2nd Ed.) "The reaching movements of patients with Parkinson's disease under self-directed maximal speed and visually-cued conditions" (Brain). "Implicit and explicit processes during acquisition of functional skills" (Scand. J. Occupational Therapy).

## Herbert P. Ginsburg

J acob H. Schiff F oundations Professor of P sychology and Education Department of H uman Development
B.A., H arvard University; M.S., Ph.D., University of N orth Carolina

Scholarly Interests: Intellectual development. $M$ athematics education. Testing and assessment.

Selected Publications: Children's A rithmetic (Pro-Ed).
Piaget's Theory of Intel lectual D evdopment (Prentice-H all). Entering theC hild's M ind (Cambridge). The Teacher's G uide to FlexibleInterviewing in the Classroom: Learning W hat Children Know A bout $M$ ath (Allyn Bacon).

## A. Lin Goodw in

A ssociate P rofessor of Education Department of Curriculum and Teaching
B.S., Central Connecticut State University; M.A., Ed.M., Ed.D., Teachers College, Columbia U niversity
Scholarly Interests: Teacher education for urban and multicultural contexts. Teacher beliefs. Equity education. Asian American educa tional experiences and identity devel opment.

Selected Publications: A ssessment for Equality and Inclusion: Embracing All Our Children (R outledge). "M ulticultural stories: Preservice teachers' conceptions of and response to issues of diversity" (U rban Education). "Voices from the margins: Asian American teachers' experiences in the profession" (Teacher Education Y earbook V: Research on the Education of Our $N$ ation's Teachers). "Racial identity and education" (R eview of Research in Education)


Herbert P. Ginsburg
J acob H. Schiff Foundations Professor of Psychology and Education

## Andrew Gordon

A ssociate Professor of M ovement
Sciences and Education Department of Biobehavioral Sciences
B.A., H ampshire College; M.S., Pennsylvania State U niversity; Ph.D., K arolinska Institute; Postdoctoral Fellow, University of Minnesota.

Scholarly Interests: $N$ eural control of movement. M otor learning and devel opment. M ovement disorders. Brain processes. Professional devel opment and research training of therapists and clinical educators

Selected Publications: "Impaired force coordination during object rel ease in children with hemiplegic cerebral palsy" (D evelopmental M edicine and Child N eurology). The effects of constraint induced therapy on hand function in children with hemiplegic cere bral palsy" (Pediatric Physical Therapy). "Specificity of internal representations underlying grasping" (J ournal of $N$ europhysiology). "D evelopment of hand motor control" (H andbook of Brain and B ehavior in H uman D evelopment).

## Peter Gordon

A ssociate P rofessor of Speech and L anguage $P$ athol ogy
Department of Biobehavioral Studies
B.A., University of Stirling Scotland
Ph.D., M assachusetts Institute of Technology

SCH OLARLY INTERESTS: Language acquisition. Crosscultural studies of numerical cognition and linguistic knowledge. Infant event repre sentations and verb argument structure. Psychol inguistic studies of word structure in English. M agnetic R esonance Imaging of brain functioning in language processing.

Selected Publications:
"Frequency effects and the representation status of regular inflections" (J ournal of M emory and L anguage). "The acquisition and creolization of Condition C "violations" of K adiweu and Portuguese" (Cadernos deE studos Linguisticos). "A relions and tigers substitutes or associates? Evidence against slot filler accounts of children's early categorization" (Child D evelopment). Learnability of theChinese D ative A Iternation (Cascadilla Press). "The truth-val ue judgment task" (M ehods for A ssessing C hildren's Syntax, MIT Press). "Red rats eater exposes recursion in children's word formation" (Cognition).

## R. Douglas Greer

Professor of Education and
P sychology
Department of H ealth and Behavior Studies
B.M.E., M.M.E., Florida State University; Ph.D., University of Michigan
Scholarly Interests: Comprehensive A pplication of Behavior A nalysis to Schooling (CA BA S®). Teaching operations for the acquisition of verbal behavior by students with Ianguage deficits. Research in the learn-unit as a natural fracture of teaching.

Selected Publications:
"The educational crisis" (Sodial Problems in A merican Society and Solutions). "Is the learn unit the fundamental measure of pedagogy?" (The B ehavior A nalyst) Voices for all children: A dvanced and comprehensive applications of behavior analysis to education (A cademic Press).

## Gregory W. Hamilton

A ssistant Professor of English Education
Department of Arts and Humanities
B.A., Lewis and Clark College; M.A., Ed.D., Teachers College

Scholarly Interests: Middle school readers and young adult literature. Classroom discourse. Curriculum and staff development. School


Gregory W. Hamilton
Assistant Professor of English
Education
reform. Teaching for diversity and social justice.

Selected Publications: "Listening, Learning, and Talking It Through" (in B ecoming (Other)wise in press). "J ack" (in R ationales for Young A dult Literature). "Reading J ack" (English Education). "Making connections" (English Education). "Lessons from our past: H istory of English education" (N ew Y ork City A ssociation of A ssistant Prindipals Supervision, English IV ). "Professional educators" (Y ahoo! Internet Life).

## David Torrey Hansen

Professor of Philosophy and Education
D epartment of Arts and Humanities
B.A., University of Chicago M .A., Stanford U niversity; Ph.D., U niversity of Chicago

Scholarly Interests: Philosophy of education Teaching and teacher education. M oral and ethical issues in educational practice. Philosophical foundations of inquiry.
Selected Publications:
Exploring the M oral H eart of Teaching: Toward a Teacher's Creed (T eachers College P ress) "The place of ideals in teaching" (Philosophy of Education). "Teaching as a moral activity" (in H andbook of Research on Teaching, 4th Ed.). "The M oral Environment in an Inner-City Boys' High School" (Teaching and Teacher Education, in press).

## Zhao Hong Han

A ssistant P rofessor of L anguage and Education
D epartment of Arts and Humanities
B.A., Central China N ormal University; M .A., M oray H ouse Institute of Education, University of Edinburgh; Ph.D., Birkbeck College, University of London
Scholarly Interests: Psycholinguistic processes of second language acquisition in general. Interlanguage devel op-ment/non-development (fos-


Zhao Hong Han
Assistant Professor of Language and Education
silization). Cross-linguistic influence. The role of corrective feedback. Second language pedagogy.
Selected Publications: "The persistence of the implicit influence of NL : The case of the pseudo-passive" (A pplied Linguistics). "Error persistence: An empirical pedagogy" (L anguage Teaching Research). "Fossilization: M oving the concept into empirical longitudinal study" (Experimenting with U ncertainty). "'N ovel unaccusatives': Is detransitivization taking place?" (International Review of A pplied Linguistics).

## Charles C. Harrington

Professor of A nthropology, P sychology and Education and Chair of the D epartment of Organization and $L$ ఱdership
A.B., Syracuse U niversity; Ph.D., H arvard University
Scholarly Interests: H uman development in social and cultural contexts. The study of resiliency, resistance, invulnerability and success in at-risk populations. Psychological anthropology and education. Individuals in organizations. Ethnographic design.

Selected Publications:
Paths to Success: B eating the Odds in A merican Society (H arvard U niversity Press). Educational Policy in an Era of Conservative Reform (AM S Press). Race, Sex, and $N$ ational Origin: Public Attitudes of $D$ esegregation (AMS Press). P sychol ogi cal A nthropol ogy and Education (AM S Press).

## J ay P. Heubert

A ssociate P rofessor of Education and Law
Department of Organization and Leadership
A djunct Professor of Law Columbia Law School
B.A., Swarthmore College;

M .A.T., Duke University; J.D., H arvard Law School; Ed.D., H arvard G raduate School of Education
Scholarly Interests: Legal issues in education. Equal educational opportunity. High-stakes testing. Law and school reform. Interprofessional collaboration. A ccess of students with disabilities to the general curriculum.
Selected Publications: High Stakes: Testing for Tracking, Promotion, and G raduation ( N ational A cademy Press). Law, Lawyers and School Reform (Yale U niversity Press).
"Schools without rules? Charter Schools, Federal Disability

Law, and the Paradoxes of Deregulation" (H arvard Civil Rights-Civil Liberties Law Review). "The more we get together: Improving collabora tion between educators and their lawyers" (H arvard Educational Review).

## Linda Hickson

Professor of Education D epartment of H ealth and Behavior Studies
B.A., College of $N$ ew R ochelle; M.A., Ph.D., George Peabody College, Vanderbilt U niversity
Scholarly Interests:
Education of children and adults with mental retardation and autism. Cognitive, motivational, and emotional aspects of decision-making. Prevention of abuse and victimization. Cognition, comprehension, and problem solving.
Selected Publications: "Decision-making and mental retardation" (International Review of Research in M ental Retardation). "A closer look at interpersonal decision-making in adults with and without mental retardation" (A merican J ournal on $M$ ental $R$ etardation). "Decision-making by adults with mental retardation in simulated situations of abuse" (M ental Retardation). M ental Retardation: Foundations of Educational Programming (Allyn \& Bacon).


J ay P. Heubert
Associate Professor of Education and Law

## Christopher R. Higgins

A ssistant Professor of Philosophy and Education
Department of Arts and Humanities B.A., YaleUniversity; Ph.D., Teachers College, Columbia University.
Scholarly Interests: The ethics of teaching. Liberal learning and its place in teacher education. Dialogue and the teacher-student relationship. H ermeneutics. Psychoanal ytic perspectives on educational practice. A esthetic education.

Selected Publications: "Educational philosophy as liberal teacher education: Charting a course beyond the dilemma of relevance" (Philosophy of Education). "Transference love from the couch to the classroom: A psychoanalytic perspective on the ethics of teacher-student romance" (Philosophy of Education). "Socrates' effect/M eno's affect: Socratic elenchus as kathartic therapy" (P hilosophy of Education).

## Elaine Virginia How es

A ssistant Professor of Science Education
Department of $M$ athematics, Science and Technology B.A., Oakland University H onors College; Ph.D., Michigan State U niversity
Scholarly Interests: Feminist and culturally relevant pedagogy in science, environmental education, and teacher education. Qual itative research and teacher research.
Selected Publications:
"Visions of 'Science for All' in the Elementary Classroom" (n Teaching for empow erment in science and technology, Teachers College Press, in press). "A feminist revisioning of infinity: Small speculations on a big subject" (P ost)M odern Science (Education): Frustrations, Propositions, and A lternative $P$ aths, in press). "Connecting girls and science: A feminist teacherresearcher study of a high-
school prenatal testing unit" (J ournal of Research in Science Teaching). "Response to Guest Editorial: The W ISE Group: Connecting activism, teaching and research" (J ournal of Research in Science Teaching).

## Pearl Rock Kane

A ssociate P rofessor of Education Department of Organization and Leadership
B.A., City College of N ew York; M.A., Smith College; Ed.D., Teachers College, Columbia U niversity
Scholarly Interests: Independent schools. Private school governance. School choice and privatization. Professional development of teachers and administrators.
Selected Publications: Independent Schools, Independent Thinkers (J ossey-B ass). TheF irst Y ear of Teaching: Real W orld Stories from A merica's Teachers (W alker). TheC hallenge in Trusteeship (Association of Governing Boards). "Leadership at the Millennium" (Independent Schools).

## Alexander P. Karp

A ssistant Professor of $M$ athematics Education
Department of $M$ athematics, Science and Technology B.A., M.A., Leningrad State Pedagogical University; M.A., PH .D ., St. Petersburg State
Pedagogical University;
Scholarly Interests: Curriculum. Teacher Training. Student Achievement Level in $M$ athematics. Problem Solving. History of Mathematics Education.

Selected Publications: "Russian Schools for the M athematically and Scientifically Talented: Can the Vision Survive U nchanged?" (with E.F.D onoghue and B.R.Vogei). R oeper Review. A Journal of Gifted Education. "The Preparation of Teachers for the M athematically G ifted: An International Perspective" (with L. Evered). N CSSSM ST

Journal. Exams in M athematics (secondary school)-Russian experience: Traditions, Changes, Difficulties. Regular Lecture at ICM E-9 (T he 9th International Congress On M athe matical Education). Combining Russian and W estern A pproaches in Teaching M athematics to Students of H umanities. In Proceedings of the Conference "Cultural Diversity in M athematics (Education): CIEAEM 51."

## Barbara Kiefer

A ssociate Professor of Education Department of Curriculum and Teaching
B.A., M .Ed., W estminister College; Ph.D., Ohio State University

Scholarly Interests:
Children's literature, especially the use of picture-books in reading education. Reading language arts. Literacy education.
Selected Publications: Children's Literaturein the Ele mentary School, 7th Ed. (McGraw Hill). The Potential of Picture books: F rom Visual Literacy to A esthetic U nderstanding (Prentice H all). A $n$ I ntegrated L anguage $P$ erspective in the Ele mentary School: T heory into A ction, 3rd. Edition (Longman). "Picture-books as contexts for literary, aesthetic and real world understandings" (L anguage A rts).

## J oAnne Kleifgen

A ssociate P rofessor of Linguistics and Education and A cademic A ssociate, Institute for Learning Technologies
Department of International and Transcultural Studies B.A., Our Lady of the Lake of San Antonio; M.A., The University of Alabama; Ph.D., U niversity of Illinois at Urbana Champaign
Scholarly Interests: Discourse analysis. Children's second language and literacy devel opment. Computers and communication in schools, communities and the workplace.


Barbara Kiefer
Associate Professor of Education

Selected Publications: "Assembling talk: Social alignments in the
workplace" (R esearch on Languageand Social Interaction). "Cerrando la brecha digital/Closing the digital divide" ( P anamanian M inistry of E ducation). "Assembling knowledge" (Research on Language and Social Interaction).
"K reyol Ekri, K reyol Li: H aitian children and
computers"(Educational H ori-
zons). "Achieving coherence in multilingual interaction" (Discourse P rocesses).

## L. Lee Knefelkamp

Professor of Higher Education Department of Organization and Leadership
B.A., M acal ester College; M.A., Ph.D., U niversity of Minnesota

Scholarly Interests: U ndergraduate curriculum. Curriculum transformation. Theories of student development. The design of effective learning communities. W omen in higher education. Feminist pedagogy, theory, and research. Intellectual and ethical development. Diversity in higher education.

Selected Publications: W orkbook for the Practiceto-T he ory M odd (A merican College Personnel Association). N ew D irections in Higher Education: A pplying $N$ ew D evelopmental Findings (J ossey-B ass). "H igher education and the consumer society", "Seasons of academic life: H onoring our collective autobiography", "The multicultural curriculum and communities of peace" (Liberal Education). "Education for a world lived in common with others" (E ducation and D emocracy, College Board).

## Michelle G. Knight

A ssistant Professor of Education Department of Curriculum and Teaching
B.A., Franklin and M arshall College; M .A., M onterey Institute of International Studies; Ph.D., University of California, Los Angeles

Scholarly Interests:
Equity issues in urban education. Teacher education. M ulticultural feminisms and feminist pedagogies. African-A merican teaching practices with diverse populations.


Michelle G. Knight
Assistant Professor of Education

Selected Publications:
"Ethics in qualitative research: Multicultural feminist activist research" (T heory into Practice). "Finding Our W ay: Challenging Oppressive Educational and Societal Practices" in The Thought and Practice of A ntiR acist Teaching (R outledge).
"The role of English in Anglophone A frica" (M ontere) R eview).

## Robert E. Kretschmer

A ssodiate Professor of Education and $P$ sychol ogy
Department of H ealth and Behavior Studies
B.S., M .A ., N orthwestern University; Ph.D., University of K ansas

Scholarly Interests: Teaching of the deaf and hard of hearing. Linguistics of English and ASL. Literacy devel opment. Text structure. School psychology. Auditory streaming.
Selected Publications: Reading and Hearing I mpaired Individuals (Alexander Graham Bell Association). "M etacognition, metalinguistics and intervention" (A pplied Psycholinguistics). "The psycho-educational assessment of hearing impaired children" (A uditory D isorders in School C hildren, third edition, Theime and Stratton). "Educa-
tional consideration of at-risk hearing impaired children" (Speech, L anguage and H earing Services in the Schools). "Teach-ers-as-researchers: Supporting professional development" (Volta R eview). "Multihandicapped, hearing impai red students as thinkers and 'feelers'" (Volta R eview). "D eveloping a functional encoding screening program: Implications and rel ationship to action based research" (Volta R eview).

## Deanna Kuhn

Professor of Psychology and
Education
Department of H uman D evelopment
B.S., University of Illinois;

Ph.D., University of California at Berkeley
Scholarly Interests:
Cognitive development across the life span and implications for educational theory and practice.
Selected Publications: "A developmental model of critical thinking" (Educational Researcher). TheSkills of A rgument (Cambridge University Press). "Children and adults as intuitive scientists" (P sychological Review). "Education for thinking: W hat can psychology contribute?" (Promoting C ognitive G rowth Over the LifeSpan).

## Law rence Haruo Kushi

Ella M CC ollum Vahltedch Professor of $N$ utrition Education Department of H ealth and Behavior Studies
A.B., A mherst College; Sc.D., H arvard School of Public Health
Scholarly Interests: N utritional epidemiology. Diet and chronic disease risk. N utrition interventions to promote heal th. Complementary and al ternative health practices.
Selected Publications:
"Prospective study of diet and ovarian cancer" (A merican J ournal of Epidemiology). "Physical activity and mortality in postmenopausal women" (J ournal of
the A merican $M$ edical A ssociation). "H ealthy implications of $M$ editerranean diets in light of contemporary knowledge" (A merican Journal of Clinical N utrition). "Dietary antioxidant vitamins and death from coronary heart disease in postmenopausal women" ( N ew England Journal of M edicine).

## Leah B. Lapidus

Professor of P sychology and
Education
Department of Counseling and Clinical Psychology B.A., Ph.D., N ew York University; M.A., Teachers College, Columbia U niversity
Scholarly Interests: Stress and coping. Trauma reduction. Child abuse identification, intervention, and prevention. Psychopathology and schizophrenia. Legal issues in diagnosis and treatment. Crosscultural mastery of parentchild intervention. Psychological differentiation and reduction of violence in families, schools, and the community. Impact of early social experience on brain function and psychophysiology in facilitation of adaptive coping.
Selected Publication s:
"Cognitive control and reactions to stress: Conditions for mastery in the anticipatory phase" (Proceedings of the A merican P sychol ogical A ssociation). "Anxiety, arousal, and schizophrenia: A theoretical integration" (P sychological B ullein). "Cross-cultural consistencies in prenatal perceptual patterns and prenatal practices" (International Journal of Prenatal and Prenatal Studies).

## Hope J ensen Leichter

Elbenwood Professor of Education and D irector of the E Ibenwood Center for the Study of the F amily as Educator
Department of International and Transcultural Studies A.B., Oberlin College; Ph.D., H arvard University

Scholarly Interests:
Families and communities as educators. Family memories and narratives. K inship networks and grandparents as educators. The mediation of television by the family. M useum education for families. Families and school reform. Immigration, migration and family education.
Selected Publications:
Kinship and Casew ork: Family N ew orks and Social Intervention (Russell SageFoundation). F amilies and Communities as Educators (Teachers College Press). "The school and parents" (The Teachers H andbook). "The concept of educative style" (Teachers College R ecord). "Family contexts of television" (E ducational Communication and Technology).
"Families and museum" (M arriage and Family Review).

## Nancy Lesko

A ssociate P rofessor of Education Department of Curriculum and Teaching
B.S., Georgetown U niversity;
M.S., University of W isconsinM adison; Ph.D., U niversity of Wisconsin-M adison
Scholarly Interests: Curriculum theory and history. Conceptions of children and youth in theory and practice. Gender issues in education. Servicelearning curricula.
Selected Publications:
"D enaturalizing adolescence: The politics of contemporary representations" (Y outh \& Sodey). "Past, present, and future conceptions of adol escence" (E ducational Theory). "The 'leaky needs' of school-aged mothers: An examination of US programs and policies" (Curriculum Inquiry). Reducing the Risk: School s as Communities of Support (Falmer Press).


Henry M. Levin
William Heard Kilpatrick Professor of Economics and Education and Director, National Center for the Study of Privatization in Education (NCSPE)

## Henry M. Levin

William H eard Kilpatrick Professor of E conomics and Education and D irector, N ational C enter for theStudy of Privatization in Education (N CSPE)
Department of International and Transcultural Studies B.S., N ew York University; M.A., Ph.D (Economics), Rutgers U niversity
Scholarly Interests: Economics of education. Costeffectiveness anal ysis. School reform. Educational vouchers.

Selected Publications:
Cost Effective A nalysis: C oncepts and A pplications, 2nd Edition (Sage Publications). Privatizing Education (W estview Press).
"Educational vouchers: Effectiveness, choice, and costs" (J ournal of Policy A nalysis and M anagement). "Educational performance standards and the economy" (Educational Researcher). "A ccel erated schools: A Decade of Evolution," (in International H andbook of Educational C hange, K luwer A cademic Publishers). "Raising school productivity: An X-Efficiency Approach" (E conomics of Education).

## Suniya S. Luthar

A ssociate P rofessor of P sychol ogy and Education
Department of H uman Development
B.Sc., M .Sc., Delhi University (India); Ph.D., Yale U niversity

Scholarly Interests: Developmental psychopathology and resilience among children and families at risk.

Selected Publications Poverty and children's adjustment (Sage). "The construct of resilience: A critical evaluation and guidel ines for future work" (Child D evelopment). D evelopmental Psychopathol ogy: Perspectives on adjustment, risk, and disorder (Cambridge U niversity Press).
"Relational Psychotherapy M others' Group: A developmental ly informed intervention for at-risk mothers" (D evelopment and P sychopathol ogy).

## Victoria J. Marsick

Professor of Education and Codirector, TheJ.M. H uber Institute for Learning in Organizations Department of Organization and Leadership
B.A., N otre Dame U niversity; M.I.P.A., M axwell School; Ph.D., University of California at Berkeley
Scholarly Interests: W orkplace learning. Learning organizations. International models of management.
Selected Publications: Informal and Indidental Learning in theW orkplace (Routledge). Sculpting the L earning Organization (J ossey-B ass). Team Learning Survey (Organization Design and Development). $M$ aking L earning Count (Gower). Informal Learning on the) ob (Advances in Developing H uman Resources, Berrett $K$ oehler)

Victoria J. Marsick
Professor of Education and Co-director, The J.M. Huber Institute for Learning in Organizations

## Susan Garni M asullo

A ssistant Professor of Practice in Education
D epartment of H ealth \& Behavior Studies
B.A., Thomas M ore College, Fordam University; M .A., Teachers College, Columbia University; Ph.D., Fordam University

Scholarly Interests: Reading assessment and intervention. Adult literacy; vocational and workplaceliteracy. Learning disabilities.

## J ason H. M ateika

A ssistant Professor of M ovement Sciences and Education D epartment of Biobehavioral Studies
B.Sc., U niversity of Guelph (Canada); M.Sc., Ph.D., University of Toronto (Canada)
Scholarly Interests:
Exercise and breathing. Sleep disordered breathing and its effect on cardio-respiratory function.

Selected Publications:
"Spontaneous baroreflex anal ysis in non-apneic snoring individual sduring NREM sleep" (J ournal of Sleep and Slep D isorders Research). "R esponse of human tongue protrudor and retractors to hypoxia and hypercapnia" (A merican Journal of Respiratory and Critical CareM edicine). "Long-term facilitation of upper airway respiratory muscle



J ason H. M ateika
Assistant Professor of M ovement
Sciences and Education
activity in the cat" (J ournal of A pplied Physiology). "Co-activation of tongue protrudor and retractor muscle during chemoreceptor stimulation in the rat" (J ournal of P hysiology).

## Robert O. McClintock

TheJ ohn L. and Sue A nn Weinberg Chair in Historical and Philosophical Foundations of Education Department of $M$ athematics, Science and Technology A.B., Princeton U niversity; M.A., Columbia University; Ph.D., Teachers College, Columbia U niversity
Scholarly Interests: Applications of digital technology to educational reform. Interaction of political and educational theory. Urban education.

Selected Publications: Pow er and Pedagogy: Transforming E ducation Through Information Technology (Institute for Learning Technologies). M an and H is C ircumstances: Ortega as Educator (Teachers College Press). "R enewing the progressive contract with posterity" (U.S. D epartment of Education W hitepaper on Technology and Learning).

## Elizabeth Midlarsky

Professor of P sychology and
Education
Department of Counseling and Clinical Psychology
B.A., Brooklyn College of the City U niversity of N ew York; M.A., Ph.D., N orthwestern University
Scholarly Interests:
Psychoeducational approaches to mental and physical health in siblings of children with disabilities, older adults, and women. Altruism, helping and volunteerism. Life span and aging issues. Sex roles. Socioemotional facets of development.
Selected Publications: "Competence and adjustment among siblings of children with mental retardation" (A merican Journal of $M$ ental Retardation). A Itruism in L ater L ife (Sage). "Altruism and the Vietnam W ar veteran" (J ournal of Traumatic Stress). "Altruistic moral judgment among older adults" (A ging and H uman D evelopment). "Altruism through the life course" (F amily Caregiving A cross the L ifespan). "The generous elderly" (P sychology and A ging). "Competence, reticence and helping" (D evelopmental P sychology).

## J anet L. Miller

Professor of English Education Department of Arts \& Humanities
A.B., Grove City College; M .A., University of R ochester; Ph.D., The Ohio State University


J anet L. Miller
Professor of English Education

Scholarly Interests:
Curriculum theorizing. Gender issues in education and school reform. Representation in qualitative research and writing. Issues in the writing of educational biography and autobiography.
Selected Publications: Creating Spaces and Finding Voices: Teachers Collaborating for Empowerment (SUN Y Press). CoEditor, A Light in D ark Times: M axineG reene and the U nfinished C onversation (Teachers College Press). "W hat's Left in the Field. . . . A Curriculum Memoir" (J ournal of Curriculum Studies). "English education in the making" (English Education).

## Lisa Miller

A ssistant Professor of P sychol ogy and Education
Department of Counseling and Clinical Psychology
B.A., Yale College; Ph.D., University of Pennsylvania
Scholarly Interests:
Religion \& spirituality, depression and substance abuse,
rel ated risk factors and protective factors.

Selected Publications:
"Religion and substance use and abuse among adolescents in the $N$ ational Cormorbidity Survey" (J ournal of the A merican A cademy of Child and A dol escent $P$ sychiatry). "Religion and depression; Ten year follow-up of depressed mothers and offspring" () ournal of the A merican A cademy of Child \& A dolescent $P$ sychiatry).

## Dennis E. Mithaug

Professor of Education
Department of H ealth and Behavior Studies
B.A., D artmouth College;
M.A., M.Ed., Ph.D., Univer-
sity of W ashington
Scholarly Interests:
Equal opportunity. Disabilities studies. M oral and political theory. Self-determination.
Self-regulation. Social Policy. Special education leadership.


Dennis E. Mithaug
Professor of Education

Selected Publications: Learning to T heorize A Four-Step Strategy (Sage). Inclusi ve School ing: $N$ ational and International Perspectives (Earlbaum). Equal Opportunity Theory (Sage). SelfRegulation Theory: H ow Optimal A djustment $M$ aximizes $G$ ain (Praeger).

J ane A. M onroe
A ssodate P rofessor of Statistics and Education
Department of H uman D evelopment
B.A., M idwestern U niversity;
M.S., University W isconsin at M adison; Ed.D., Teachers College, Columbia U niversity
Scholarly Interests: Probability. Statistical inference. Multivariate techniques. Psychological factors that relate to performance in statistics, cognitive abilities and attitudes.
Selected Publications:
Introductory Statistics (Scott Foresman).

## Gary Natriello

Professor of Sociology and
Education
Department of H uman Development
A.B. Princeton University;
A.M., Ph.D. Stanford University

Scholarly Interests: Social organization of online learning. Social dimensions of performance assessment. School and classroom organization. Schooling for at risk-youth.
Selected Publications: F rom C ashbox to C lassroom: The Impact of the Quality Education A d in N ew J ersey (Teachers College Press). "The impact of eval uation processes on students" (Educational P sychologist). "The effectiveness of the Title I Compensatory Education Program: 1965-1997" (J ournal of Education for Students Placed A t Risk). The development and impact of high stakes testing (H arvard Civil Rights P roject).

## Anna Neumann

Professor of Higher Education Department of Organization and Leadership
B.A., U niversity of TexasAustin; M.A., Pan A merican University; Ph.D., University of Michigan

Scholarly Interests: Scholarly learning in lifespan perspective. Professors and their intellectual careers. Learning and teaching in higher education. W omen's schol arly development. A cademic cultures. Educational inquiry. The learning of research.

Selected Publications: "Learning the practice of educational research" (in Issues in Education Research: Problems and


Anna Neumann
Professor of Higher Education

Possibilities). "On experience, memory and knowing: A PostH olocaust (auto)biography" (C urriculum Inquiry). L earning F rom Our Lives: W omen, Research, and A utobiography in Education (Teachers College Press). "Context, cognition and culture: A case anal ysis of col legiate leadership and cultural change" (A merican Educational Research).

## Debra A. Noumair

A ssociate Professor of P sychology and Education
Department of Organization and Leadership B.S., Boston U niversity; Ed.M., Ed.D., Teachers College, Columbia University
Scholarly Interests: Power and authority relations. Influence of diversity, authority and identity on relationships at work. Gender issues.

## Selected Publications

"Clarence Thomas, A nita H ill and us: A group relations perspective" (Journal of A pplied Behavior Science). "Thetiller of authority in a sea of diversity: Empowerment, and disempowerment, and the politics of identity" (N ew Paradigms of Leadership in the 21st Century: D iversity and Consultation). "Self and identity in career development: Implication for theory and practice" (Journal of Counsding and D evelopment).

## Kathleen A. O'Connell

I sabel M aitland Stewart C hair of N ursing Education Department of H ealth and Behavior Studies B.S.N ., College of M ount St.J oseph-on-the-Ohio M.A. Ph.D., U niversity of K ansas
Scholarly Interests: Behavior change. Smoking cessation and relapse. R eversal theory. Theory of self-control strength.

Selected Publications: "H ighly tempting situations associated with abstinence, temporary lapse, and relapse among participants in smoking cessation programs" (J ournal of


Kathleen A. O'Connell
Isabel M aitland Stew art Chair of
Nursing Education

Consulting and Clinical Psychology, 1987). "Reversal theory and smoking: a state-based approach to ex-smokers' highly tempting situations" (J ournal of Consulting and Clinical Psychology, 1990). "W hy rational people do irrational things: The theory of psychological reversals" (J ournal of P sychosocial N ursing, 1991). "Coping in real time: Using ecological momentary assessment techniques to assess coping with the urge to smoke" (Research in N ursing and H ealth, 1998). "Playfulness, arousal-seeking, and rebelliousness during smoking cessation" (Personality and individual D ifferences, 2000).

## Honor O'M alley

A ssociate P rofessor of A udiology Department of Biobehavioral Studies
B.A., M arymount M anhattan College; M.S., Ph.D., Purdue University
Scholarly Interests: Function of the normal ear. Psychoacoustics and auditory physiol ogy. Intraoperative monitoring of hearing during neurotologic surgery.

Selected Publication s:
"Influence of temporal masking on Click-Pair Discriminability" (Perception and Psychophysics). "Two-tone auditory
spectral resolution" (| ournal of the A coustical Society of A merica). "Relationship between psychophysical tuning curves and suppression" (Journal of the A coustical Sodiety of A merica).
"The relationship between loudness-intensity functions and the Click-ABR W aveV Latency Functions" (E ar and H earing). "Cross-modal ity matching and the loudness growth function for Click Stimuli" (J ournal of the A coustical Society of A merica).

## M argaret Terry Orr

A ssociate $P$ rofessor of Education Department of Organization and Leadership
B.A., Denison College; M.A., Ed.M., Ph.D., Teachers College, Columbia University

Scholarly Interests: School restructuring and reform. Problem solving and organizational change. School-to-work transition for secondary and post-secondary education. Dropout prevention. Evaluation and action research.
Selected Publications: Opportunities and Choices: Lessons L earned From a C ommunity Y outh Services Effort (Peter Lang Publishing, in press). K eeping Students in School (J ossey-Bass). Evaluating School-to-W ork Transitions ( N ational Institute on W ork and Learning). "Linking secondary schools and community colleges for school-to-work transition" (J ournal of Research Vocational Education, in press).

## Cheri Ostroff

A ssodiate P rofessor of P sychol ogy and Education
Department of Organization and Leadership
B.A., U niversity of TexasAustin; M.A., Ph.D., Michigan State U niversity
Scholarly Interests: H uman resource management systems and firm performance. Levels of anal ysis issues. Per-son-organization fit. Socialization of newcomers. Selection. Training.

Selected Publications:
"M oving HR to a higher level: H uman resource practices and organizational effectiveness" (in M ultil eve T heory, R esearch, and M ethods in Organization, J osseyBass). "M etaranalysis, level of anal ysis, and best estimates of population correlations: Cautions for interpreting meta anal ytic results in organizational behavior" ( ) ournal of A pplied Psychology). "Self-other agreement: D oes it really matter?" (P asonal P sychology). "The effects of climate and personal influences on individual behavior and attitudes in organizations" (Organizational B dhavior and H uman D ecision Processes).
"The relationship between satisfaction, attitudes and performance: An organizational level anal ysis" (J ournal of A pplied P sychology).

## Celia Oyler

A ssodate P rofessor of Education Department of Curriculum and Teaching
B.S., Southern Connecticut State College; M.Ed., U niversity of Vermont; Ph.D., University of Illinois at Chicago
Scholarly Interests: Classroom-based collaborative research on issues of social justice, equity, and accessible pedagogy. Inclusion of students with disabilities in general education classrooms

Selected Publications: M aking room for students: Sharing teacher authority in R oom 104 (Teachers College Press). "Teaching beyond the progres-sive-traditional dichotomy: Sharing authority and sharing vulnerability" (Curriculum Inquiry). "Sharing authority: Student initiations during teacher-led read-al ouds of information books" (Teaching and Teacher Education). "Them and us: Finding irony in our teaching methods" (J ournal of Curriculum Studies). Silenced gender: The construction of a male primary educator (Teaching and Teacher Education). Extending narrative inquiry
(Curriculum Inquiry). Integrated curriculum and service learning: Linking school-based knowledge and social action (English Education).

## Aaron Pallas

Professor of Sociol ogy and Education Department of Human Development
B.A., University of Virginia; Ph.D., J ohns H opkins University
Scholarly Interests:
Educational stratification, sociol ogy of the life course, research methodology, school effects and effectiveness, and social organization of schools.
Selected Publications: "Rites and wrongs: Institutional explanation for the course scheduling in urban high schools" (A merican Journal of Education). Research in Sociology of Education and Socialization, vol. 12 (JAI Press).
"The effects of schooling on individual lives" (in H andbook of Sociology and Education).

## Rupal Patel

A ssistant Professor of Specch and L anguage $P$ athol ogy
Department of Biobehavioral Studies
B.Sc., U niversity of Calgary; M.H.Sc., Ph.D ., U niversity of Toronto


Rupal Patel
Assistant Professor of Speech and Language Pathology

Scholarly Interests:
Alternative and augmentative communication. Multimodal assistive technology. A coustics and prosody of motor speech disorders.
Selected Publications:
"Information content in prosody despite severe dysarthria" (In review: A Iternative and A ugmentative C ommunication) "Identifying informa-tion-bearing prosodic parameters in severely dysarthric speech" (D octoral Dissertation, University of Toronto). "Teachable interfaces for individuals with severe physical and speech disabilities" (with D. R oy in A meri can A ssociation for A rtificial Intelligence W orkshop on A ssistive Technology).

## Dolores Perin

A ssociate P rofessor of Psychology and Education
Department of H ealth and Behavior Studies
B.A., Ph.D., University of Sussex

Scholarly Interests:
Reading and writing disabilities in children and adults. Curriculum and pedagogy in community colleges. Adult and workplace literacy.
Selected Publications: "Professional izing adult literacy: W ould a credential help?" (J ournal of A dolescent and A dult Literacy). "W orkplace literacy assessment" (D yslexia). "A ssessing the reading-writing relation in adult literacy students" (R eading P sychol ogy). "W hat should workers learn in workplace Basic Education Programs?" (A dult L earning). "Understanding dropout in an urban worker education program: Retention patterns, demographics, student perceptions, and reason given for early departure" (U rban Education).


Elissa L. Perry
Assistant Professor of Psychology and Education

Elissa L. Perry
A ssistant Professor of P sychology and Education
Department of Organization and Leadership
B.S., Trinity College; M.S., Ph.D., Carnegie M ellon University
Scholarly Interests: The role of personal characteristics (e.g., age, gender, disability) in human resource judgments and organizational behavior. Specifically, age discrimination and sexual harassment issues in organizations. Organizational efforts (e.g., training) to address sexual harassment and manage diversity.
Selected Publications: "Ironic eval uation processes: Effects of thought suppression on eval uations of older job applicants" (Journal of Organizational Behavior). "An exploration of access and treatment discrimination and job satisfaction among college graduates with and without physical disabilities" (H uman R dations). "M oderating effects of personal and contextual factors in age discrimination" (J ournal of A pplied P sychol ogy). "Explaining gender-based selection decisions: A synthesis of contextual and cognitive approaches" (A cademy of $M$ anagement $R$ eview ) "Individual differences in the effectiveness of sexual harassment awareness trai ning" (J ournal of A pplied Social Psychology).

## Lisa A. Petrides

A ssistant Professor of Education Department of Organization and Leadership
B.S., U niversity of California; M.B.A., Sonoma State University; Ph.D., Stanford University
Scholarly Interests: M anagement systems and information technology. Information systems and decisionmaking in higher education. Organizational Learning.
A ccess and equity.
Selected Publications:
"W eb-based technologies for distributed (or distance) learning: Creating learning-centered educational experiences in the higher education classroom," (International Journal of Instructional $M$ edia, forthcoming).
"The Internet and higher education," (H igher Education in the U nited States: A $n$ Encyclopedia, forthcoming). C ase Studies of Information Technol ogy in Higher Education: Implications for Policy and Practice (Ed). (H ershey). "The Politics of Information," (in Case Studies of Information Technology in Higher Education: Implications for Policy and Practice, (Ed.)). "H igher education and professional preparation," (TheEncyclopedia of Third World W omen). "A gendered construction of engineering in the academic context in science coeducation: Viewpoint from gender, race and ethnic perspectives" ( $N$ ational A ssodiation of Research in Science Teaching).

## Stephen T. Peverly

A ssodate P rofessor of P sychology and Education
Department of H ealth and Behavior Studies
B.A., M anhattan College; M.S., Ed.S., State U niversity of N ew York of Albany; Ph.D., Pennsylvania State U niversity
Scholarly Interests: Cognition and instruction, studying, memory.


Stephen T. Peverly
Associate Professor of Psychology and Education

Selected Publications: "A merican and Chinese children's understanding of distance, time and speed interrelations" (C ognitive D evelopment). "The effect of adjunct questions and feedback on improving the reading comprehension of learning disabled adolescents" (C ontemporary Educational P sychol ogy). "Curriculum based assessment of reading skills" (P sychology in the Schools). "An overview of the potential impact of cognitive psychology on school psychology" (School P sychology Review ). "Problems of knowledge-based explanations of memory and development"
(Revien of Educational Research).

## Lenore Pogonow ski

A ssociate P rofessor of M usic
Education
Department of Arts and H umanities
B.S., W estern Connecticut State U niversity; M .A., University of Connecticut; D.M.A., Temple U niversity

Scholarly Interests:
Development of musicality. Musical creativity and problem solving. M etacognition. Interdisciplinary arts education.

Selected Publications:
"Critical thinking and music listening" (M usic Educators Journal). "M etacognition: A dimension of musical thinking" ( D imensions of M usical T hinking). "Attitudinal assessment of upper elementary students in a process-oriented music curriculum" (J ournal of Research in M usic Education). "Creative Arts Laboratory" (Final Report-U.S. Department of Education, Fund for Innovative Education). "Arts curricula in transition" (J ournal of A esthetic Education). "Experience, critical thinking and problem solving in music teacher preparation" (M usic E ducators J ournal).

## $J$ ames E. Purpura

A ssistant Professor of L anguage and Education
Department of Arts and Humanities B.A., M arietta College; M.A., University of Colorado; Ph.D., University of California, LoS Angeles


Lenore Pogonow ski
Associate Professor of Music
Education

Scholarly Interests:
Second language assessment;
SL acquisition theory; and Syntactic and Conversational anal ysis. Effects of socio-psychological background characteristics on SL performance.
Selected Publications: Strategy U se and Second L anguage Test Peformance. (Cambridge University Press). "An analysis of the relationships between test takers' cognitive and metacognitive strategy use and second language test performance" (L anguage Learning). The devel opment and construct validation of an instrument designed to investigate the cognitive background characteristics of test takers (Lawrence Erlbaum A ssociates). "A Review of Bialystok's Communication Strategies" (I ssues in A pplied Linguistics).

## Patricia M. Raskin

A ssociate P rofessor of P sychology and Education
Department of Organization and Leadership
B.S., M .Ed., Pennsylvania State University; Ph.D., N ew York University
Scholarly Interests:
Career devel opment of women.
Identity. W ork/family issues.
Selected Publications: Vocational Counseling (Farber,
B.A., Brink, D.C., \& Raskin,
P.M., 1996). T he P sychotherapy of Carl Rogers: Cases and Commentary (Guilford). "Therelationship between coping styles, attachments and career sal ience in partnered working women with children" (Journal of Career A ssessment). "Career maturity: The construct's validity, vitality, and viability" (C areer D evelopment Quarterly).

Susan L. Recchia
A ssociate P rofessor of Education Department of Curriculum and Teaching
B.A., University of California at Santa Cruz; M .A., Cal ifornia State U niversity at N orthridge; Ph.D., University of California at Los A ngeles

Scholarly Interests: Social and emotional development of young children. Adultchild relationships across contexts. Infants and preschoolers with special needs.
Selected Publications: "Social communication and response to ambiguous stimuli in toddlers with visual impairments" (J ournal of A pplied D evelopmental P sychology). "Establishing intersubjective experience: D evelopmental challenges for young children with congenital blindness and autism and their caregivers" (Blindness and P sychol ogi cal D evelopment in Young C hildren). "The issue of M ultiple Pathways in the development of handi capped children" (I ssues in the D evelopmental A pproach to M ental Retardation). "Self-evaluation in young children" (M onographs of the Soci dy for Research in Child D evel opment).

## D. Kim Reid

Professor of Education
Department of Curriculum and Teaching
B.A., M ontclair State U niversity; M. Ed., Temple U niversity; Ph.D., Temple U niversity
Scholarly Interests: Social and individual forces in learning. Cognitive approaches to learning disabilities.

D. Kim Reid

Professor of Education

Selected Publications: "Scaffolding: A broader view" (J ournal of Learning D isabilities). "N arrative knowing: Basis for a school-uni versity partnership" (L earning D isabilities Quarterly). L anguage deve opment, differences, and disorders: A perspectivefor general and special education teachers and classroom-based speech I anguage pathol ogists (PRO-ED). La colaboración en el aula como medio dy ayuda a los alumnos con dificultades de apredizaje del Ianguaje (Ediciones Pirámide).

## Craig E. Richards

Professor of Education D epartment of Organization and Leadership B.S., University of W isconsin at Green Bay; M .S., University of W isconsin at Milwaukee; M .A., Ph.D., Stanford U niversity
Scholarly Interests:
School finance. Institutional incentives. M arket approaches to education. Performance accountability systems. Strate gic management and organizational learning concepts.
Selected Publications: Risky B usiness: PrivateM anage ment of Public Schools (Economic Policy Institute). Rethinking Effective Schools (Prentice-H all). M icrocomputer A pplications for Strategic M anagement in Education: A C ase Study A pproach (Longman).

## Elaine L. Rigolosi

Professor of $N$ ursing Education Department of Organization and Leadership
B.S., Columbia U nion College; M .N ., U niversity of Florida; Ed.D., University of M assachusetts; J.D., Benjamin N . Cardozo School of Law, Yeshiva University
Scholarly Interests: H ealth care administration. H ealth care law. N ursing administration and education. Consumer satisfaction with heal th care. H umanistic applications in heal th care delivery.


Craig E. Richards
Professor of Education

Selected Publications: TheE mpathy Construct R ating Scale (Consulting Psychology Press). TheLaM onica Empathy Profile (Consulting Psychology Press). M anagement in H ealth Care: A Theoretical and Experiential A pproach (M acmillan). M anagement in $N$ ursing: A $n$
Experiential A pproach that M akes Theory W ork for Y ou (Springer).

## Francisco L. Rivera-Batiz

A ssociate Professor of E conomics and Education
Department of International and Transcultural Studies A.B., Cornell University; Ph.D., M assachusetts Institute of Technology
Scholarly Interests: Education and economic development. Ethnicity and gender in the labor market. Immigrants and education. The Latino population of the United States.

Selected Publications: Tigers in D istress: ThePolitical E conomy of the E ast A sian Crisis (Edward Elgar Publishers). I sland Paradox: Puerto Rico in the 1990s (Russell Sage Foun-
dation). R e inventing U rban E ducation: M ulticulturalism and the Sodal C ontext of Schooling (IU M E Press). "U ndocumented workers in the labor market: Illegal M exican immigrants in the U nited States" (J ournal of Population E conomics).

## Anne Sabatini

A ssistant Professor of Practicein Education
Department of Curriculum and Teaching
B.A., College of Mount St.

Vincent;
M.S., H unter College
M.S., Pace U niversity

Ed.D., Teachers College,
Columbia U niversity
Scholarly Interests: Professional development of teachers. Teacher education. Teacher retention. Equity. Qualitative methodologies.

Selected Publications: School-based Collaborative D ecision M aking at a N ew York City Comprenensive Public H igh School (Bell \& H owell). "W hat keeps beginning teachers of Latino and A frican-A merican heritage teaching in inner city N ew York public schools?" (A Resource for Teacher Educators, Teachers College). "M onitoring and assessing a collaborative teaching internship: A case of responsive evaluation" (Texas A\&M University). "Skill-building activities for elementary school children" (Science: It's A Changing W orld, N ational Geographic W orld). "Problem solving and enrichment lessons" (Elementary School M athematics, G radeF ive and G radeSix, H oughton Mifflin).

## John Saxman

Professor of Speech Pathology and C hair of the Department of Biobehavioral Studies
B.A., San Diego State U niversity; M.S., Ph.D., Purdue University
Scholarly Interests: Communication disorders. Phonatory behaviors across the life-span. Experimental Phonetics.
Selected Publications: Introduction to Communication D isorders (Prentice-H all).
"A coustic observations in young children's non-cry vocalization" (J ournal of the A coustical Sociaty of A merica). "A comparison of selected phonatory behaviors of healthy aged and young adults" (J ournal of Speech and H earing Research).

## Frances Schoonmaker

Professor of Education
Department of Curriculum and Teaching
B.A., U niversity of W ashington; M.A., George Peabody College for Teachers,
Vanderbilt University; Ed.D.,
Teachers College, Columbia University
Scholarly Interests: Curriculum, teaching, and supervision: history, theory and practice. Teacher preparation. Caring and values education. Religious education.


Frances Schoonmaker
Professor of Education

Selected Publications: G rowing U p Caring: Exploring Values and Decision-M aking (McGraw Hill). "Curriculum implementation" (A ERA $H$ andbook on Research on CurricuIum). "Promise and possibility: Learning to teach" (Teachers College Record). Curriculum making, models, practics and issues: A knowledge fetish? (100th Y earbook of the $N$ ational Society for the Study of Education. University of Chicago Press).

## Keith Sheppard

A ssistant Professor of Science Education
Department of $M$ athematics, Science and Technology B.Sc., Liverpool University; P.G.C.E., Christ's College, Liverpool University; Ed.D., Teachers College
Scholarly Interests: Student scientific understanding and conceptual change learning. The role of computers and technology in science and science teacher education.

Selected Publications: "Index of R efraction: Teacher K it" (Scientific American).

## Dorothy Shipps

A ssistant P rofessor of Education Department of Organization and Leadership
B.A., U niversity of California; M.A., University of California; Ph.D., Stanford University
Scholarly Interests: History and politics of urban school reform. Private interests in school governance. Civic capacity and educational change; policy analysis.
Selected Publications:
"RegimeChange: M ayoral Takeover of the Chicago Public Schools" in Cibulka and Boyd (Eds.) R forming U rban School G overnance (G reenwood Ablex). Reconstructing the C ommon $G$ ood in Education: Coping with Intractable A merican D ilemmas (co-author, Stanford U niversity Press) "The politics of urban school reform: Legitimacy, city growth and school improvement in


Dorothy Shipps
Assistant Professor of Education

Chicago" (E ducational Policy) "Corporate involvement in school reform" in Clarence Stone (Ed.) C hanging U rban Education (U niversity Press of K ansas).
"TheInvisibleH and: Big Business and Chicago School
Reform" (Teachers College Record).

## M arjorie Siegel

A ssociate P rofessor of Education Department of Curriculum and Teaching
B.S., U niversity of W isconsin (Madison); M.S., Ed.D., Indiana U niversity
Scholarly Interests:
Reading in mathematics classrooms. Cultural and critical perspectives on literacy education. Literacy and the arts.
Selected Publications: Reading Counts: Expanding the R ole of $R$ eading in $M$ athematics Classrooms (Teachers College Press). "Critical approaches" (H andbook of R esearch on Reading, Vol. 3). "Supporting students' mathematical inquiries through reading" (J ournal for Research in M athe matics Education). "M ore than words: The generative power of transmediation for learning" (Canadian Journal of Education).

Stephen J. Silverman
Professor of Education
Department of H ealth and Behavior Studies
B.S., Temple University; M.S., W ashington State University;
Ed.D., University of M assachusetts at A mherst
Scholarly Interests:
Physical education. Research on teaching. Research methodology.
Selected Publications:
"Task structures, student practice, and student skill level in physical education" (J ournal of Education Research). "The unit of analysis in field research: Issues and approaches to design and data analysis" (J ournal of Teaching in Physical Education).
"Teacher feedback and achievement in physical education: Interaction with student practice" (Teaching and Teacher Education). P roposals that work: A guide for planning di ssertations and grant proposals (4th ed.) (Sage).


Stephen J. Silverman
Professor of Education

## Thomas Sobol

Christian A. J ohnson Professor of Outstanding Educational Practice Department of Organization and Leadership
A.B., H arvard College; A.M . in Teaching, $H$ arvard Graduate School of Education; Ed.D., Teachers College, Columbia University

Scholarly Interests: Education policy. Elementary and secondary education reform. Public school governance and finance. The development of reflective education practitioners.

Selected Publications: Y our Child in School (A rbor House). "R evising the N ew York State Social Studies Curriculum" (Teachers College Record). Teaching in Cities (W hitbread PLC). "Beyond standards: The rest of the agenda" (Teachers Coll ege Record).

## Gita Steiner-Khamsi

A ssociate P rofessor of Education Department of International and Transcultural Studies B.A., M.A., Ph.D., University of Zurich

Scholarly Interests: Educational transfer and global ization from an international comparative perspective. Civic literacy and political socialization. Forced and voluntary migration, multiculturalism and educational policy studies. Colonial and postcolonial studies in education.

Selected Publications: M ulticultural Educational Polides in P ostmodern Societies (Leske \& Budrich, Germany). "Transferring education, displacing reform" (C omparative Studies Series). "Minority-inclusive history curricula in secondary schools: Adopting methods of comparison and multiperspectivity" (E uropean Journal of Intercultural Studies).

## Derald Wing Sue

Professor of P sychology and Education
Department of Counseling and Clinical Psychology
B.S., Oregon State U niversity M.S., Ph.D., University of Oregon
Scholarly Interests: M ulticultural counseling and psychotherapy. Psychology of racism and antiracism. Cultural diversity. Cultural competence. M ulticultural organizational development.
Selected Publications: U ndestanding A bnormal B ehavior (H oughton Mifflin). "Thediversification of psychology: A multicultural revolution" (A merican P sychol ogist). Counsd ing theC ulturally D ifferent: T heory and Pradice (J ohn Wiley and Sons). "The changing face of work in the U nited States: Implications for individual, institutional and societal survival" (Cultural Diversity and M ental H ealth). M ulticultural Counseling Compe tencies: Individual, Professional and Organizational Development (Sage Publications).

## Graeme L. Sullivan

A ssociate P rofessor of A rt Education Department of Arts and Humanities Dip. Art Ed. (H ons); M.A., Ohio State U niverisity; Ph.D. Ohio State U niversity


Graeme L. Sullivan
Associate Professor of Art Education

Scholarly Interests:
Cognition and artistic practice and research methods for arts disciplines.
Selected Publications: Seeing A ustralia: Views of A rtists and A rtwriters (Piper Press).
"Critical interpretive inquiry: A qual itative study of five contemporary artists' ways of seeing" (Studies in A rt Education). "Beyond the quantitative and qual itative divide: Research in Art Education as Border Skirmish" (A ustralian A rt Education). Critical Influence: Interac-tiveCD-ROM (University of N ew South W ales).

## Robert P. Taylor

A ssociate P rofessor of C omputing and Education
Department of $M$ athematics, Science and Technology
B.A., D enison University;
B.D., M.A., University of Chicago; Ed.D., Teachers College, Columbia U niversity
Scholarly Interests: Computer-based technology in education, across the curriculum, and around the world, including its utility for human survival in a bal anced ecosystem.
Selected Publication s: TheC omputer in the School: Tutor, Tool, Tute(Teachers College Press). "Communicative technology and the emerging global curriculum" (A CM SiccueOutlook). "The use of the computer in teaching mathematics" (J ournal of Technology and Teacher Education). "Educational problems and solutions incorporating technology" (in Spanish, M emorias: II C ongresso C ol obiano deInformatica Educativa).


Stephen J. Thornton
Associate Professor of Social Studies and Education

## Stephen J. Thornton

A ssociate P rofessor of Social Studies and Education
Department of Arts and Humanities
B.A., M.A., U niversity of N ewcastle (A ustralia); Diploma of Education, M itchell College (A ustralia); A.M., Ph.D., Stanford University
Scholarly Interests: Social studies education. Curriculum studies. Teaching policies and educational practice. Teaching of history.
Selected Publications: "Teacher as a curricularinstructional gatekeeper in social studies" (H andbook of Research on Social Studies Teaching and Learning). The CurricuIum Studies R eader (editor with David Flinders, R outledge Press). "Subject specific teaching methods: H istory" (A dvances in Research on Teaching, Vol. 8: Subject-Specific Instructional M ethods and A ctivities). "Legitimacy in the social studies curriculum" (E ducation A cross a Century: TheCentennial Volume, 100th Yearbook of the $N$ ational Society for the Study of Education, P art1).

## Maria Emilia Torres-Guzman

A ssociate Professor of Bilingual Education
Department of International and Transcultural Studies B.A., U niversidad de Puerto Rico; M.A., University of Michigan; M.A., Ph.D., Stanford University
Scholarly Interests: Cross-cultural communication and classroom interaction. Diversity and teacher education. Bicultural/bilingual curriculum. Parental involvement in bilingual/bicultural education. Spanish language arts.
Selected Publications:
"M ulticultural Education, Part I \& II" (Teachers College Record). "Stand \& deliver: Student voices about teaching" (Puerto Rican Voices). "Stories about differences in a collaborative with middle school students" (T heory into Pradice). "Language, culture and literacy in Puerto Rican communities" (Literacy in D iverse Communities).
"Recasting frames: Latino parent involvement" (P olicy and
Practice in B ilingual Education: Extending the Foundations).
"Language minorities: M oving from the periphery to the center?" (E ducational F orum).

## Mun C. Tsang

Professor of Economics and Education and $D$ irector for the Center on Chinese E ducation Department of International and Transcultural Studies B.S., M .S., M assachusetts Institute of Technology; M.A., Ph.D., Stanford U niversity
Scholarly Interests: Costs and financing of education. Chinese education policy. Education and economic development.
Selected Publications:
"Education and national development in China since 1949: Oscillating policies and enduring dilemmas (China Review).
"Financial reform of basic education in China" (E conomics of Education Review). "Cost analysis of educational inclusion of
marginalized population" (UN ESCO). "The impact of surplus schooling on worker productivity" (Industrial R dations). "The development of human capital in an emerging economic: The case of Shen-
zhen China" (C hina Quarterly).

## Hervé Varenne

Professor of Education and Chair of the D epartment of International and Transcultural Studies License-ès-Lettres, U niversité d'Aix-M arseille; M.A., Ph.D., University of Chicago
Scholarly Interests:
Culture and communication theory. Comparative study of education in and out of school. Family structure.
Selected Publication s: A mbiguous H armony (Ablex). A merican School Language (Irvington). A mericans Together (Teachers College Press). Successful Failure (W estview). Symbolizing A merica (N ebraska).

## Frances K. Vavrus

A ssistant P rofessor of Education Department of International and Transcultural Studies B.A., Purdue University; M .A., U niversity of IIlinois at U rbana Champaign; Ph.D., University of W isconsin-M adison
Scholarly Interests: Development theory and history. Gender issues in education. Education and demographic change. Educational reform in Africa.
Selected Publications: "Governmentality in an era of 'empowerment': The case of Tanzania" (Educational Knowledge: C hanging Relationships between the State, Civil Sociedy, and the Educational C ommunity). "Gender and educational research, policy, and practice in Sub-Saharan A frica: Theoretical and empirical problems" (Women and Education in SubSaharan A frica: Power, Opportunities, and C onstraints).

## Ruth Vinz

A ssodiate P rofessor of English Education and Chair of the D epartment of A rts and H umanities and Interim Dean, F all 2001 B.S., M ontana State U niversity; M.A., Boise State U niversity; Ph.D., N ew York University
Scholarly Interests:
Constructions of classroom literacies. (Re)presenting Research as W riting Rethinking M ulticultural and Interdisciplinary education. Teachers'
Perspectives on School Reform.
Selected Publications: Composing A Teaching Life (H einemann, Boynton/Cook). On W riting Qual itative Research: Living by W ords (Falmer). "H orrorscapes: (In)Forming adolescent identity and desire" (J ournal of Curriculum Theorizing). "Opening moves: Conversations on the first year of teaching" (English Education). "The things we carry: W orking 'In Rel ation' to the past" (English Education). "Cautions against canonizing (an)other literature" Becoming (Other)W ise: Critical perspectives on reading literature (Calendar Island).

## Bruce R. Vogeli

Clifford B rewster U pton Professor of $M$ athematics $E$ ducation Department of $M$ athematics, Science and Technology B.S., M ount Union College; A.M., K ent Sate U niversity; Ph.D., University of Michigan
Scholarly Interests:
International and comparative mathematics education. Educa tion of the mathematically gifted. Curriculum development and evaluation.
Selected Publications: SBG M athematics 2001 (sixbook series, Silver Burdett and Ginn.) Special Schools for the M athematically Talented - an International Pandrama (Lampadia Foundation.) H oughton M ifflin M athematics 2001 (sevenbook series; Senior Author).

## Cally L. Waite

A ssistant Professor of History and Education
Department of Arts and Humanities B.A., N ew College; M.A., Stanford U niversity; Ed.D., H arvard U niversity
Scholarly Interests: The transformation of higher education in the late 19th century; education for A frican Americans in the north during the 19th century; historical theory and methodology.
Selected Publications: "The Invisible ‘Tal ented Tenth', W omen and Dubois" (F eminist Engagements). "Segregation of black students at Oberlin College after reconstruction" (H istory of Education Quarterly).

## Barbara C. Wallace

A ssociate P rofessor of $H$ ealth Education
Department of H ealth and Behavior Studies
A.B., Princeton University; M .A., Ph.D., City University of N ew York
Scholarly Interests: Diversity training for multicultural competence. Primary, secondary and tertiary viol ence prevention in school- and com-munity-based settings. Domestic violence. Addictions and dependencies, especially to crack and cocaine. Drug abuse and HIV/AIDS. H eal th promotion in multicultural settings. Global health.
Selected Publications: A M ulticultrual A pproach to U nderstanding and D ealing With Violence A H andbook for Psychologists and Educators (Edited with R obert Carter, in press, Sage Publications). A dult Children of Dysfunctional F amilies: Prevention, Intervention and Treatment for C ommunity H ealth Promotion (Praeger). Crack Cocaine: A Practical Treatment A pproach for the C hemically D ependent (Brunner/M azel). TheC hemically D ependent: P hases of Treatment and Recovery (Brunner/M azel).

## Francis Timothy Walsh

A ssistant Professor of Practicein L anguages and Education D epartment of Arts \& Humanities
B.A., Colgate U niversity; M.F.A., University of Pennsylvania; M.A., San Francisco State U niversity; Ph.D., N ew York University

Scholarly Interests: TESOL and bilingual teacher knowledge development. Action research in TESOL teacher education. Second Ianguage literacy and aesthetic education.

Selected Publications: "Bilingual teachers as action researchers" (ERIC Clearinghouse). "A mathematics curriculum for Vocational English As a Second Language (VESL)" (Bilingual Education Training and $A$ ssistance $C$ enter). "Chapter 4: Literacy for amnesty applicants" (In L egalization P hase II, A pplying for Permanent Residence, Brady, K. (Ed), E ast Palo Alto Immigrant and Legal Resource C enter). "W hat's in a name?" (TheESL Literacy Bullein). "U sing student generated photos in ESL literacy" (T heESL
Literacy Bulletin).

## Amy Stuart Wells

Professor of Sociol ogy and
Education
Department of H uman Development
B.A., Southern M ethodist University; M.S., Boston U niversity; Ph.D., Columbia U niversity, Teachers College

## Scholarly Interests:

Educational policy. R ace and education. Charter schools. School desegregation. School choice policy.
Selected Publications:
"The politics of accountability: California School Districts and charter school reform" (T he Stanford Law and Policy Review). "Diversity and Inequality: M ontera Charter High School" (In Charter Schools and the Paradox of Radical Decentralization,
B. Fuller (Ed.), H arvard U niversity Press). The M ultiple M ean-
ings of Charter School Reform: W hen Policy Claims M eet Local Contexts (Teachers C oll ege Press). Stepping Over the Color Line: A frican-A merican Students in W hite Suburban Schools (YaleU niversity Press).

## J ames D. Westaby

A ssistant Professor of $P$ sychology and Education
Department of Organization and Leadership
B.A., University of W isconsin; Ph.D., University of Illinois

Scholarly Interests: W ork attitudes, employee development, and human resource management
Selected Publications: "I dentifying specific factors underlying attitudes toward change: Using multiple methods to compare ExpectancyValue Theory to Reasons The ory" (J ournal of A pplied Social P sychol ogy). "Presence of others and task performance in J apan and the U nited States: A Laboratory Investigation" (International Journal of P sychol ogy).
"Self-reported reasons: A test and application of Reasons Theory on occupational behavior" (B asic and A pplied Social P sychol ogy).

## Betty Lou Whitford

Professor of Education and D irector, N C REST
Department of Curriculum and Teaching
A.B., M.A.T., Ph.D., University of N orth Carolina at Chapel H ill
Scholarly Interests: Education reform and school change, school-university colIaboration, Professional Development Schools, and professional development.
Selected Publications: "A ssessment and accountability in K entucky: H ow high stakes affect teaching and learning" (International H andbook of Educational Change). "Of promises and unresolved puzzles: R eforming teacher education through Professional Development Schools" (N SSE Year-


Betty Lou Whitford
Professor of Education and
Director, NCREST
book). A ccountability, A ssessment, and Teacher Commitment: Lessons from K entucky's reform efforts (SUN Y Press). K nitting It A II Together: Collaborative teacher education in Southern M aine (AACTE, in press).

## J oanna P. Williams

Professor of P sychology and Education
Department of H uman D evelopment
A.B., Brown University; Ed.M., H arvard U niversity; M.S., Ph.D., YaleU niversity

Scholarly Interests: Text comprehension. Beginning reading. Students with learning disabilities and other at-risk students.
Selected Publications: "Improving the comprehension of disabled readers" (A nnals of D ysl exia). "Teaching decoding with an emphasis on phoneme analysis and phoneme blending" (J ournal of Educational Psychol ogy). "Learning-disabled adolescents' difficulties in solving personal/social problems" (Teaching D ecision-M aking to A dol escents). "Comprehension of students with and without learning disabilities: Identification of narrative themes and idiosyncratic text representa tions" (Journal of Educational P sychol ogy).

## Leslie R. Williams

Professor of Education
Department of Curriculum and Teaching
B.A., Wellesley College;

M .A.T., H arvard University;
Ed.D., Teachers College,
Columbia U niversity
Scholarly Interests:
Early childhood education.
Multicultural education. Curriculum/program development and implementation. H istory of early childhood education.
Selected Publications: Kaledoscope: A M ulticultural A pproach for the Primary School Classroom (co-authored, PrenticeHall). Encydopedia of Early Childhood Education (Garland). A LERTA: A M ulticultural, Bilingual A pproach to Teaching Young Children (Addison-W esley). "D oes practice lead theory? Teachers' constructs about teaching: Bottom-up perspectives" (A dvances in Early Education and D ay Care, vol. 8, Jai Press).

## Randi L. W olf

Research A ssistant Professor of H ealth Education
Department of H ealth and Behavior Studies
B.S., Cornell University M.P.H ., Ph.D., University of Pittsburgh
Scholarly Interests:
Factors influencing colorectal cancer screening behaviors. Nutrition and osteoporosis.
Selected Publications:
"Factors associated with calcium absorption efficiency in pre and perimenopausal women" (A merican J ournal of Clinical Nutrition). "U pdate on the epidemiology of Osteoporosis" (Current R heumatology Report). Epidemiology: TheM agnitude of C oncern In Preventing and M anaging 0 steoporosis (Springer Publishing). "Diet, bone loss, and fracture: A review of recent literature" (Current Opinion in Orthopedics). "Low fractional calcium absorption increases the risk of hip fracture in women with low calcium intake" (A nnals of Internal M edicine).

## Christine J. Yeh

A ssistant Professor of P sychology and Education
Department of Counseling and Clinical Psychology
B.A., Swarthmore College;

Ed.M., H arvard University; Ph.D., Stanford U niversity
Scholarly Interests: Cultural conceptualizations of self, coping, and mental health. Cross-cultural school counseling.
Selected Publications: "Interdependence in ethnic identity and self: Implications for theory and practice" (J ournal of Counsding and D evelopment). "Asian-A merican coping styles and help seeking attitudes: A comparison of within group differences" (J ournal of Coll ege Student D evd opment). "The collectivistic nature of ethnic identity development among Asian-A merican college students" (A dol escence).


Christine J. Yeh
Assistant Professor of Psychology and Education

## Lyle Yorks

A ssociate P rofessor of A dult and
C ontinuing E ducation
Department of Organization and Leadership
B.A. Tusculum College, M.A. Vanderbilt University, M.A., Ed.D. Columbia U niversity
Scholarly Interests: Action Learning. Collaborative Inquiry. Qualitative Research M ethods. Strategic
A pproaches to H uman Resource D evel opment.
Selected Publications:
Collaborative I nquiry in Practice: A ction Refection and $M$ eaning M aking (Sage). "A ction Iearning: Successful strategies for individual, team, and organizational devel opment" (A dvances in $D$ evd oping $H$ uman Resources, Berrett K oehler). "H awthorne, Topeka, and the issue of science versus advocacy in organizational behavior" (A cademy of $M$ anagement Review ). "Boundary management in Action Reflection Learning Research: Taking the R ole of a Sophisticated Barbarian" (A cademy of H uman Resource D evelopment Quarterly).


Lyle Yorks
Associate Professor of Adult and
Continuing Education

## Karen Kepler Zumw alt

Evenden P rofessor of Education Department of Curriculum and Teaching
B.A., M ount H olyoke College; M .A.T., H arvard University; Ph.D., University of Chicago
Scholarly Interests: Curriculum. Teaching. Teacher education. Alternative routes to certification.
Selected Publications: "Research on teaching: Policy implications for teacher educa tion" (N SSE Yearbook). Improving Teaching (A SCD Yearbook). "Curriculum implementation" (A ERA H andbook of Reearch on Curriculum). "Beginning professional teachers: The need for a curricular vision of teaching" (A ACTE K nowledge B asefor $B$ eginning Teachers).

Arts and Humanities
Philip E. Aarons
A djund A ssistant Professor of
A rts A dministration
B.A., Columbia University,

1973; J.D., 1976
Joseph A morino
$A$ djund $A$ ssistant Professor of A rt

## Education

B.A., N ew Jersey City U niversity, 1976; M.A., 1980;
Ed.D.C.T., Teachers College, 1999

Dino Anagnost
A djundt Professor of M usic Education
B.A., Boston U niversity, 1966;
M.S., The Julliard School,

1969; A.M., Columbia U niver-
sity, 1973
Gay Brookes
A djunct A ssociate P rofessor of Education
B.A., N ew H ampshire College; A.M., Columbia University,

1962; Ed.M., 1984; Ed.D., 1987

Jennifer Burns
A djund A ssistant Professor of Phil osophy and Education B.A., Yale U niversity, 1990;
M.A., U niversity of M ichigan,

1991; M .A., Teachers College,
1997; Ph.D., City University
of N ew York, 1997.
Lan-K u Chen
A djund A ssodiate P rofessor of M usic Education
B.A., Chinese Culture U niversity, 1973; M.A., Yale U niver-
sity, 1977; Ed.D., 1983
Angiola Churchill
A djund Professor of A rt and Education
B.S., Teachers College, 1944;
M.A., 1958; Ed.D., 1967

Alice H. Deakins
A djund A ssodiate P rofessor of Education
B.A., W hitworth College, 1959; M.A., University of W ashington, 1962; Ph.D., Columbia U niversity, 1975

Eugenia Earle
A djunct A ssociate P rofessor of M usic Education
B.A., Birmingham Southern College, 1943; A.M., Columbia University, 1952; Ed.D., 1979

M artha Eddy
A djunct A ssistant Professor of $D$ ance Education
B.A., H ampshire College,

1979; M.A., Teachers College,
1985; Ed.D., 1998
Leonard Fleischer
A djunct A ssistant P rofessor of A rts A dministration
B.A., N ew York University,

1954; J.D., Brooklyn Law
School, 1954; M .A ., Columbia
University, 1961; Ph.D., N ew
York U niversity, 1971
Alvin Fossner
A djunct A ssociate P rofessor of M usic Education
B.A., N ew England Conserva-
tory of M usic, 1947; A.M.,
Columbia U niversity, 1949;
Ed.D., 1969
Susan J. Glaser
A djunct A ssistant P rofessor of M usic and Education
B.S., Indiana U niversity, 1980;

M .M., N orthwestern U niver-
sity, 1981; D.M.A., The Juil-
liard School, 1995
Jeanne C. Goffi
A djunct A ssistant Professor of M usic Education
B.A., Boston U niversity, 1984;

M .A., Boulder, 1988; Ed.D.,
Teachers College, 1996
R obert Greenblat
A djunct Professor of A rt A dministration and Education
B.S., Brooklyn College, 1959;

M .A., Yale U niversity, 1962,
Ph.D., 1963
Franklin E. H orowitz
A djunct A ssociate P rofessor of Linguistics and Education A.B., Columbia University, 1953, Ph.D., 1971

Thomas H. H oyt
A djunct A ssistant Professor of Musicand Education
B.A., SUN Y Purchase, 1987;
M.M., Y ale U niversity, 1989;
D.M.A., SUN Y Stony Brook, 1992

J oan J effri
A djunct Professor of A rts
A dministration
B.F.A., Boston U niversity, 1967

Chin Kim
A djunct A ssistant Professor of M usic Education
D.M., The Julliard School, 1989
I. Fred K oenigsberg

A djunct A ssistant Professor of
A rts A dministration
B.A., Cornell U niversity;
M.A., University of Pennsylva-
nia; J.D., Columbia U niversity
Bert K onowitz
A djunct Professor of $M$ usic
Education
B.A., Queens College, 1953;
A.M., Columbia U niversity,

1954; Ed.D., 1969
Leonard Leibowitz
A djunct A ssistant Professor of A rts A dministration B.A., Bucknell University, 1960; J.D., Brooklyn College, 1965

J oseph Sander Lukinsky
A djunct Professor of Religion and Education
A.B., R oosevelt U niversity, 1951; M.H.S., Jewish Theolog-
ical Seminary, 1956; Ed.D.,
H arvard U niversity, 1968
Robert H.I. Martin
A djunct A ssistant Professor of Political Science and Education B.A., Smith College, 1967;

M .A., Teachers College, 1970;
Ph.D., Columbia U niversity,
1977

Solomon Mikowsky
A djund A ssodiate P orfessor of
M usic Education
B.S., Juilliard School of Music,

1960; M.S., 1961; Ed.D.,
Columbia U niversity, 1973
J oy M oser
A djund A ssociate P rofessor of A rt Education
B.A., Sarah Lawrence College, 1954; M.A., N ew York Uni-
versity, 1963; Ph.D., 1981
A ngelo M iranda, Jr.
A djund Professor of $M$ usic
Education
B.A., City College, CUNY, 1981; M .A., Teachers College, 1984; Ed.D. 1996.

Alison N owak
A djund A ssistant Professor of M usic Education
B.A., Bennington College,

1970; A .M., Columbia U niver-
sity, 1972, D.M.A., 1980
Estrella Pujadas
A djund A ssistant P rofessor of Teaching of Spanish
B.A., NY School of Interior Design, 1955; M.A., Pedro H enriquez U reña U niv.; 1978;
M .Ed., Teachers College, 1990;
Ed.D., 1991
Jennybelle Rardin
A djund A ssociate P rofessor of L anguageand Education
B.S., Loyola U niversity, 1964;
M.Ed., 1967; Ph.D., 1971
$N$ athalie Gail Robinson
A djund A ssistant P rofessor of
M usic Education (H onorary)
B.S., W estern Connecticut University, 1976; M.M.Ed., Temple University, 1980;
Ed.D., Teachers College, 1995
Prabha Sahasrabudhe
A djund A ssistant Professor of A rt Education
B.S., A gra (India), 1947; B.A., 1951; M.A., N ew York University, 1955; Ed.D., 1961

H adassah Sahr
A djund A ssociate P rofessor of M usic Education
Artist Diploma, The Julliard
School, 1944; B.S., Columbia University, 1954; A.M.,
Charles 1955; Ed.D., 1969
John F. Schuder
A djund A ssistant Professor of
M usic Education
B.M., W ittenberg U niversity,

1970; M.S.M ., Union Theolog-
ical Seminary, 1972; D.M.A.,
The J ulliard School, 1978
J. M ark Schuster

A djund Professor of A rts
A dministration
A.B., H arvard College, 1972;

Ph.D., M assachusetts Institute
of Technology, 1979
Marilyn Shaw
Lecture in English Education
B.A., SUN Y, N ew Paltz, 1970;
M.S., 1980; Ed.D., Teachers

College, 1999
Barbara L. Tischler
A djunct A ssistant Professor of History and Education B.A., Douglass College, 1971;
A.M., Columbia U niversity,

1978; M.Phil., 1980; Ph.D., 1983

H oward A. Williams
Lecturer in A pplied Linguistics
B.A., Boston U niversity, 1973; M.A., University of W ashington, 1979; M.A.T.E.S.L., 1986; Ph.D., UCLA, 1996

H aruko Yoshizawa
A djund A ssistant Professor of M usic E ducation
B.M., M anhattan School of

Music, 1984; M.A., Teachers
College, 1992; M.Ed., 1993;
Ed.D., 1999.

BIOBEHAVIORAL
Studies
Sergei Aleshinsky
A djund A ssodiate P rofessor
M.S. M oscow State U niversity,

1968; Ph.D., 1977

M ark Budde
A djunct A ssistant Professor of Speech and L anguage Pathology B.S., M oorhead State U niversity, 1974; M.S.U., U niversity of W isconsin, 1975; Ed.M .,
Teachers College, 1990; Ed.D., 1992

## Catherine Crowley

D istinguished Practitioner
B.A., University of Rochester, 1975; M.A., K ean College of N ew J ersey, 1979; J.D. Rutgers Law School, 1985

Dympna Gallagher
A djunct A ssistant Professor of A pplied Physiology
B.A., St. Patrick's College,

1985; M.A., St. M ary's Col-
lege, 1987; M.A., Teachers
College, 1990; Ed.D., 1992
Terry K aminski
A djunct A ssociate P rofessor of M ovement Sciences
B.S., State U niversity of N ew York (Syracuse), 1976; Ed.D.,
Teachers College, 1986
Carol K aufman
Instructor
B.S., St. Boston University,

1961; M.S., Southern Connecticut State U niversity, 1976

Roger Muzii
A djunct A ssistant P rofessor of M ovement Sciences
B.A., N ew York University, 1974; M.A., Teachers College, 1980; Ph.D., Columbia U niversity, 1988

Lorraine R amig
A djunct Professor of Speech L anguage Pathol ogy B.S., University of W isconsin, 1972; M .S., University of W isconsin, 1975; Ph.D., Purdue U niversity, 1980

Justine Sheppard
A djunct A ssociate P rofessor of Speech Pathol ogy
B.A., N ew York University, 1959; M .A., Teachers College, 1964; Ph.D., Columbia University, 1979

J aclyn Spitzer
A djunct P rofessor of Speech and $L$ anguage $P$ athol ogy
B.A., Brooklyn College, 1972;
M.S., Teachers College, 1973;

Ph.D., Teachers College, 1978
Ronald Tikofsky
A djunct P rofessor of Speech and
$L$ anguage $P$ athol ogy
B.A., Brooklyn College, 1952;

Ph.D., U niversity of U tah, 1957

K aren W exler
A djunct A ssociate P rofessor of
Specch Pathology (H onorary)
F.M., U ppsal a (Sweden), 1968;

M .A., Columbia U niversity,
1971; Ph.D., 1978
Counseling And
Clinical Psychology
X avier F. A mador
A djunct A ssociate P rofessor of
P sychol ogy and Education
B.A., SUN Y Purchase, 1982;

M .A., N ew York University,
1982; Ph.D., 1989
Jill Backfield
A djunct A ssistant Professor of P sychol ogy and Education
B.S., Brooklyn College, 1986;
M.S., Teachers College, 1988;

Ph.D., 1996
Ron Balamuth
A djunct A ssistant P rofessor of P sychology and Education B.A., Tel-Aviv U niversity, 1981; M.A., N ew York Uni-
versity, 1986; Ph.D., 1990
Michele M. B artnett
A djunct A ssistant Professor of
P sychology and Education
B.A., City University of New

York, 1971; M.A., Teachers
College, 1979; M.A., N ew
York University, 1986; Ph.D., 1992

Donna Bender
A djunct A ssistant Professor of
P sychology and Education
B.A., Bucknell University,

1982; M.S., Teachers College, 1994, Ph.D., 1996

A nita Bohensky
A djund A ssistant P rofessor of P sychology and Education
B.A., N ew York University, 1967; M.A., 1969; Ph.D., 1981

Ghislaine Boulanger
A djund A ssodiate P rofessor of Psychology and Education
B.A., H unter College, 1975; M.S., Teachers College, 1979;

Ph.D., Columbia U niversity, 1981

Jill Bellinson
A djund A ssistant Professor of Psychology and Education B.A., Columbia U niversity, 1972; M.A., City University of
N ew York, 1976; Ph.D., 1982

## Brenda Berger

A djund A ssistant P rofessor of Psychology and Education
B.S., Columbia University, 1982; M.S., Teachers College, 1985; Ph.D., 1987

Bruce Berman
A djunct A ssistant Professor of Psychology and Education
B.A., University of $W$ isconsin,

1970; M.A., A delphi Univer-
sity, 1976; Ph.D., 1983
D avid Beyda
A djund A ssistant P rofessor of Psychology and Education
B.S., City College of N ew

York, 1965; Ph.D., Columbia U niversity, 1983

## Susan Bognar

A djund A ssistant P rofessor of P sychology and Education
B.A., W esleyan University, 1982; Ph.D., N ew York University, 1986; Ph.D., City University of N ew York, 1992

## Eve Brody

A djund A ssistant P rofessor of Psychology and Education
B.A., University of Michigan (Ann Arbor), 1983; M.A., Teachers College, 1988; Ph.D., 1990

Peter C. Cairo
A djund A ssodiate P rofessor of Psychology and Education B.A., H arvard U niversity, 1971; Ph.D., Columbia University, 1977

Alec Cecil
A djund A ssistant Professor of Psychology and Education
B.A., Yale U niversity, 1978;

Ed.M., Teachers College, 1986;
Ed.D., 1991
Johnathan Cohen
A djund A ssociate P rofessor of
Psychology and Education
B.A., A ntioch University,

1975; Ph.D., City U niversity
of N ew York, 1979
Sarah Curtis
A djund A ssistant Professor of Psychology and Education
B.A., W indham College, 1975;
M.A., N ew York University,

1979; Ph.D., 1987
$K$ aren Derby
A djund A ssistant Professor of Psychology and Education B.A., K eene State U niversity, 1981; M.S., Columbia U niversity, 1985; Ph.D., 1989

Sally Donaldson
A djund A ssistant Professor of Psychology and Education (H onorary)
B.A., Bennington College; M.A., Columbia U niversity, 1973; Ph.D., N ew York University, 1984

Penny Donnenfeld
A djund A ssistant Professor of Psychology and Education
B.A., Barnard College, 1978;
M.A., Yeshiva U niversity,

1981; Ph.D., 1994
William Dubin
A djund Professor of P sychology and Education
B.A., N ew York University, 1950; M.A., Columbia U niversity, 1953; Ph.D., 1958

M orris Eagle
A djunct A ssistant Professor of P sychology and Education
B.A., City College, 1949;

Ph.D., N ew York University, 1958

Ann Fenichel
A djunct A ssistant P rofessor of P sychology and Education B.A., Barnard College, 1976;

M .A., Teachers College, 1988;
Ed.M., 1988; Ph.D., Columbia
U niversity, 1998
Eileen F. Fitzgerald
A djunct A ssistant P rofessor of P sychology and Education B.A., Sarah Lawrence College, 1971; M.S., Bank Street College, 1974; M.A., N ew York University; 1983; Ph.D., 1990

J ames Fosshage
A djunct Professor of Psychology and Education
B.A., U niversity of Colorado,

1962; Ph.D., Columbia Uni-
versity, 1968
K evin Fried
A djunct A ssistant P rofessor of P sychology and Education B.A., N ew York University, 1986; M.A., Long Island University, 1988; Ph.D., 1993

Robert Gaines
A djunct A ssistant P rofessor of P sychology and Education B.A., Colgate U niversity, 1971; Ph.D., N ew York U niversity, 1979

Richard B. Gartner
A djunct A ssociate P rofessor of P sychology and Education B.A., H averford U niversity, 1967; M .S., Columbia U niversity, 1971; Ph.D., 1972

## J esse Geller

A djunct A ssociate P rofessor of P sychology and Education B.A., City College of N ew York, 1960; M.A., U niversity of Connecticut, 1961, Ph.D., 1966

Abigail Gewirtz
A djunct A ssistant Professor of P sychol ogy and Education
B.Sc., University of London, 1987; M.S., Teachers College, 1997; Ph.D., Columbia University, 1997

Geoffrey David Goodman A djunct A ssistant Professor of P sychol ogy and Education B.S., M assachusetts Institute of Technology, 1983; M.A., Columbia U niversity, 1986; Ph.D., N orthwest University, 1991

J acquelineJ. Gotthold A djunct A ssistant Professor of Education
B.A., Case W estern Reserve U niversity, 1975; M.A., 1975; Psy.D., Yeshiva U niversity, 1984

Carmen Grau
A djunct A ssistant Professor of P sychol ogy and Education License degree in Philosophy and Education Sciences, Universidad Central de Barcelona, 1982; Ph.D., Long Island University, 1991

Steven R. Guggenheim
A djunct A ssistant Professor of P sychol ogy and Education A.B., Cornell University, 1966; M.B.A., Columbia U niversity, 1968; Ph.D., Teachers College, 1993

George Gushue
A djunct A ssistant Professor of P sychol ogy and Education B.A., Fordham University, 1978, M .A., Teachers College, 1991; Ph.D., 1996

Valentina Fischer H arrell
A djunct A ssistant P rofessor of P sychol ogy and Education B.S., Ohio State University, 1965; M.Sc., 1966; M.Sc., Teachers College, 1975; Ph.D., 1979

Anton H. H art
Visiting A ssistant Professor of P sychology and Education
B.A., V assar College, 1983;

Ph.D., University of M assachu-
setts (A mherst), 1989
Arthur H eiserman
A djund A ssi stant Professor of Psychology and Education B.A., Bennington College, 1979; M.A., City University of N ew York, 1987; M.S., Teachers College, 1990, M.Phil., 1990; Ph.D., 1993

Charles Fernandez H err
A djund A ssistant P rofessor of P sychology and Education
B.A., H unter College, 1978;
M.S., Teachers College, 1986;

Columbia U niversity, 1992
Christiane H umke
A djund A ssi stant Professor of P sychology and Education B.A., H unter College, 1989; M .A., Farleigh Dickinson Uni-
versity, 1995, Ph.D., 1999
N urit Israeli
A djund A ssociate P rofessor of Psychology and Education B.A., H ebrew, J erusalem University, 1966; M.S., Long Island U niversity, 1974; Ed.M., Columbia U niversity, 1982; Ed.D., 1982

Samuel D. Johnson, Jr. A djund Professor of P sychology and Education
B.A., Ripon College, 1969; M .A., Colgate U niversity, 1970; Ph.D., U niversity of Minnesota, 1982

M aryann Diviney Juska A djund A ssistant P rofessor of P sychology and Education B.A., Saint J oseph's College, 1970; M.A., N ew School for Social Research, 1980; M.A., Long Island U niversity, 1987; Ph.D., 1992

## Stuart K antor

A djund A ssistant Professor of Psychology and Education B.A., U niversity of $M$ ichigan, 1972; Ph.D., Case W estern Reserve U niversity, 1977

Special Term Faculty

Graham G. K avanagh
A djunt A ssociate P rofessor of P sychology and Education B.A., St. Catherine's College, 1969; B.A., W orchester College, 1973; M .A., St. Catherine's College, 1973; M .A., W orchester College, 1978; M.A., Adelphi University, 1981; Ph.D., 1983

Richard K estenbaum
A djund A ssistant Professor of Psychology and Education
B.A., N ew York University, 1963; Ph.D., 1968

Beth E. K ing
A djunct A ssistant Professor of Psychology and Education
B.A., M ount H olyoke College, 1977; M.S., Bank Street College, 1980; Ph.D., Columbia U niversity, 1990

Michael J. K oski
A djund A ssistant P rofessor of Psychology and Education B.S., N ew York University, 1969; M.S., H unter College, 1973; Ed.M., Teachers College, 1990; Ph.D., Columbia University, 1998

Jerome K osseff
A djund $P$ rofessor of $P$ sychology and Education
B.A., City University of N ew York, 1939; M.A., Columbia University, 1941; Ph.D., N ew York U niversity, 1951

N anette A . K ramer
A djund A ssodiate P rofessor of P sychology and Education B.A., R ochester U niversity, 1974; M.A., University of Southern California, 1977; Ph.D., 1981

Elizabeth K rimendahl
A djund A ssistant Professor of Psychology and Education B.A., Duke U niversity, 1982; M.A., N ew York University, 1989; Psy.D., 1992

Emily K uriloff
A djunct A ssistant P rofessor of P sychology and Education
B.A., Vassar College, 1980;

Psy.D., Yeshiva U niversity, 1985

Robert Langan
A djunct A ssistant P rofessor of P sychology and Education B.A., H arvard U niversity, 1969; M .A., Columbia University, 1973; Ph.D., N ew York U niversity, 1984

Wilma Lewis
A djunct A ssistant P rofessor of P sychology and Education B.S., N ew York University, 1963; M .A., 1968; Ph.D., University of Pennsylvania, 1974

Lisa Litt
A djunct A ssistant P rofessor of P sychology and Education B.A., B.S. (economics), U niversity of Pennsylvania, 1987; M .A., Adelphi University, 1990; Ph.D., 1996

W endy Lubin
A djunct A ssistant P rofessor of P sychology and Education B.A., Boston U niversity, 1971;
M.A., N ew York University, 1975; Ph.D., 1985

Judith Lukoff
A djunct A ssistant Professor of P sychology and Education B.A., University of California
(LA ), 1977; M.A., Teachers
College, 1948; Ph.D., 1977
Carola H. M ann
A djunct A ssistant P rofessor of P sychology and Education
B.A., H unter College, 1951; M.A., The N ew School for Social Research, 1953; Ph.D., N ew York University, 1957

## John M athews

A djunct A ssistant Professor of P sychology and Education A.B., H arvard University, 1980; Ph.D., N ew York U niversity, 1991
$N$ eal K athleen May
A djunct A ssistant Professor of P sychol ogy and Education B.A., University of Colorado, 1975; Psy.D., University of Denver, 1980

Linda A. M ayers
A djunct A ssistant Professor of P sychol ogy and Education
B.A., M cGill U niversity, 1967;
M.A., Teachers College, 1968;

Ph.D., Yeshiva U niversity,
1975
Rita W. McCleary
A djunct A ssistant P rofessor of P sychology and Education B.A., University of Chicago, 1974; M.A., York U niversity (Toronto), 1978; M.A., U niversity of Chicago, 1988; Psy.D., Chicago School of Professional Psychology, 1988

Wilson E. M eaders
A djunct A ssociate P rofessor of P sychol ogy and Education
B.A., Southern M ethodist University, 1953; M.A., University of N orth Carolina, 1955;
Ph.D., 1957
Alan M elowsky
A djunct A ssistant P rofessor of P sychol ogy and Education
B.A., Queens College, 1963;
M.A., N ew York University,

1966; Ph.D., Columbia Uni-
versity, 1975
Samuel E. M enahem
A djunct A ssistant Professor of P sychology and Education
B.A., Queens College, 1968;
M.S., Teachers College, 1972;

Ph.D., United States Interna-
tional University, 1976
Juliette M eyer
A djunct A ssistant P rofessor of P sychology and Education B.A., Oberlin College, 1984;

M .A., Yeshiva U niversity,
1988; Ph.D., 1991
I ra M oses
A djunct A ssistant Professor of P sychology and Education B.A., W ashington University, 1970; Ph.D., M ichigan State U niversity, 1975

Ernesto Mujica
A djund A ssistant Professor of Psychology and Education
B.A., Bennington University,

1979; M.A., N ew York Uni-
versity, 1986; Ph.D., 1991
Debra $N$ evas
A djund A ssistant Professor of Psychology and Education
B.A., Trinity College, 1986; M .A., Teachers College, 1991;
M.Phil., 1993; Ph.D., 1997

Laura N isco
A djund A ssistant P rofessor of
P sychology and Education
B.A., Cornell University, 1985;

Ph.D. Teachers College, 1998
John V. O'Leary
A djund A ssociate P rofessor of P sychology and Education B.A., St. John's U niversity, 1964; Ph.D., 1976

M aureen O'R eilly-Landry A djund A ssistant P rofessor of Psychology and Education B.A., H arvard-R adcliffe College, 1978; Ph.D., N ew York U niversity, 1985

DaleH. Ortmeyer
A djund A ssistant P rofessor of Psychology and Education B.S., I owa State U niversity, 1949; M.S., 1951; Ph.D., Teachers College, 1955

Eva Dubska Papiasvili A djund A ssodiate P rofessor of Psychology and Education Ph.D., Charles (Prague), 1976

Lynn Pearl
A djund A ssistant Professor of Psychology and Edcuation
B.A., University of Miami, 1964; M.S., 1967; Ph.D., 1970

A recel ia Pearson-Brok
A djunct A ssociate P rofessor of Psychology and Education
B.A., Lehman College, 1977;

Ph.D., Columbia U niversity, 1985

K ristin Perry
A djund A ssistant Professor of P sychology and Education
B.A., Colby College, 1988;

Psy.D., Pace U niversity, 1996
Leanard Pilaro
A djund A ssistant Professor of Psychology and Education B.A., University of Virginia, 1966; M.A., N ew York Uni-
versity, 1973; Ph.D., 1977
Billie Ann Pivnick
Visiting A ssociate P rofessor of Psychology and Education B.A., Oberlin College, 1971;
M.Ed., N ew England College, 1974; M.S., Columbia U niversity, 1987; Ph. D., 1990

David Pollens
A djund A ssistant Professor of Psychology and Education B.A., Yale U niversity, 1974; M.Phil., Teachers College, 1983; Ph.D., 1985

Steven Reisner
A djund A ssociate P rofessor of Psychology and Education B.A., Princeton U niversity 1976; M.S., Columbia U niversity, 1986; Ph.D., 1989

Susan R ose
A djund A ssistant Professor of P sychology and Education
B.A., Barnard College, 1977;
M.S., Ohio U niversity, 1980;

PhD., 1983
John Rosegrant A djund A ssistant Professor of Psychology and Education B.A., University of Chicago, 1972; M. S., Yale U niversity, 1975; Ph.D., 1978

Lori A. Rosenberg
A djunct A ssistant Professor of Psychology and Education
B.A., U niversity of Rochester, 1981; Psy.D., Rutgers U niversity, 1986

## Sherry R oss

A djund A ssodiate P rofessor of Psychology and Education B.A., N ew York University, 1976; Ph.D., 1982

Arden Aibel R othstein
A djunct A ssistant Professor of P sychology and Education
B.A., H arvard University, 1969; Ph.D., Teachers College, 1974

June Rousso
A djunct A ssociate P rofessor of P sychology and Education
B.A., H ofstra U niversity, 1971;
M.A., N ew School for Social

Research, 1973; Ph.D., 1977
Richard Rubens
A djunct Professor of Psychology and Education
B.A., Yale U niversity, 1968;
B.H.L., H ebrew Union Col-
lege, 1971; Ph.D., Columbia
U niversity, 1976
M arcelo Rubin
A djunct A ssistant P rofessor of
P sychology and Education
B.S., H unter College, 1984;

Ph.D., Teachers College, 1990

## Barbara Sandberg

A djunct A sistant Professor of P sychology and Education B.S., Brooklyn College, 1972; M .A., Teachers College, 1973; Ed.M., Teachers College 1974;
Ph.D., Columbia U niversity, 1976.

Michael Schwartzman
A djunct A ssistant P rofessor of P sychology and Education B.A., George W ashington University, 1975; M.S., City College of N ew York, 1977; Ph.D., Yeshiva, 1983

Susan Shachner
A djunct A ssistant P rofeesor of P sychology and Education B.A., H amilton College, 1976;
M.S., Teachers College, 1989;

Ph.D., Columbia U niversity, 1995

Richard Shadick
A djunct A ssistant P rofessor of P sychology and Education B.A., State U niversity of N ew York at Albany, 1987; M.S., Pennsylvania State U niversity, 1990, Ph.D., 1992

M ark Barry Siegert
A djunct A ssistant Professor of P sychol ogy and Education
B.A., Colorado University, 1977; Ph.D., Tennessee University, 1984

N orma Plavnick Simon
A djunct A ssociate P rofessor of P sychology and Education B.A., N ew York University, 1962; M.A., Columbia U niversity, 1953; Ed.D., 1968

H awthorne Emery Smith Adjunct Assistant Professor of
Psychology and Education
B.S., Georgetown U niversity,

1987; M .A., Columbia U niversity, 1992; M.Phil, Teachers
College, 1995, Ph.D., 1999

## W alter E. Spear

Visiting A ssodiate P rofessor of
P sychology and Education
B.A., Fordham University,

1973; M .A., Columbia U niversity, 1975; Ph.D., 1978

M axine Spector
A djunct A ssistant Professor of P sychology and Education B.A., Dickinson University, 1967; M.A., N ew School for Social Research, 1976; Ph.D., 1983

A rlene Steinberg
A djunct A ssistant Professor of P sychology and Education B.A., N ew York University, 1979; M.A., Yeshiva University, 1983; Psy.D ., 1986

Michael Stern
A djunct A ssociate P rofessor of
P sychol ogy and Education
B.A., Tel Aviv University,

1969; M.A., M ichigan State,
1971; Ph.D., 1975
J effrey Michael Stone
A djunct A ssistant Professor of P sychology and Education B.A., The City College of N ew York, 1972; M.A., U niversity of M ichigan, 1976; Ph.D., 1978

A aron M. Thaler
A djund A ssistant P rofessor of Psychology and Education B.A., State University of N ew York (Binghampton), 1974;
M.A., N ew School For Social

Research, 1982; Ph.D., Colum-
bia University, 1989
William M. Tortorella
Visiting A ssociate P rofessor of P sychology and Education
B.A., Fordham University, 1959; M.A., 1963; Ph.D., 1967

J oseph Turkel
A djund A ssistant Professor of Psychology and Education B.A., City College of N ew York, 1967; Ph.D., M cM aster, 1974

M ichael W ald
A djund A ssistant P rofessor of P sychology and Education B.A., George W ashington University, 1972; Ph.D., St. J ohn's University, 1981

## Susan S. W alker

A djund A ssistant P rofessor of Psychology and Education
B.A., Tufts U niversity, 1977;

M .S., Yeshiva U niversity, 1983;
Psy.D., 1986
Vivian Ota Wang
A djunct A ssistant Professor of Psychology and Education B.A., Colorado College, 1983; M.S., U niversity of Colorado,

1988; Ph.D., Teachers College, 1995

R obert I. W atson, Jr.
A djunt A ssistant Professor of Psychology and Education B.A., W eslyan University, 1969; Ph.D., H arvard U niversity, 1974

Sara L. W eber A djund A ssistant Professor of Psychology and Education B.S., Boston University, 1969; M .A., N ew York University, 1977; Ph.D., 1983

Special Term Faculty

M. M argit Winckler

A djund A ssistant Professor of Psychology and Education B.A., City College of New York, 1972; M.A., N ew York
University, 1976; Ph.D., 1981
Arnold W olf
A djund Professor of P sychology and Education
B.A., N ew York University,

1966; M.A., 1968; Ph.D., 1977

David Yourman
A djunct A ssistant Professor of Psychology and Education B.A., Oberlin College, 1981; M.A. City College, 1993;

Ph.D., Teachers College, 2000

## Lawrence M. Zelnick

A djund A ssistant Professor of Psychology and Education
B.A., Brandeis U niversity,

1973; M.A., J ewish Theologi-
cal Seminary of A merica, 1976;
M.A., N ew York University,

1984, Psy.D., 1988
Curriculum
AND TEACHING
James A. Banks
Visiting Professor of Education
A.A., Chicago City College,

1963; B.E., Chicago State Uni-
versity, 1964; M.A., M ichigan
State U niversity, 1967; Ph.D., 1969

Valerie Bang-J ensen
Lecture of Education
A.B., Smith College, 1977;
M.A., Teachers College, 1983;

Ed.M., 1992; Ed.D., 1996
Toni Ann Bernard
A djund A ssistant Professor of Education
B.A., University of Bridgeport, 1968; M .A., Teachers College,
1973; M.A., 1980; Ed.D., 1988
Gloria Farber
A djund A ssistant Professor of Education
B.A., D ouglass College, 1957;
M.S., Bank Street College,

1974; Ed.M., 1987; Ed.D., 1993

Stephen J. Farenga
A djunct A ssistant P rofessor of Education
B.S., St. J ohns U niversity, 1981, M.S., 1985; Ed.D.,
Teachers College, 1995
Beatrice Fennimore
A djunct Professor of Education B.A., St. J osephs College, 1970; M.S., Brooklyn College, 1977; Ed.M., Teachers College, 1982; Ed.D., 1986

Valerie H enning-Piedmonte A djunct A ssistant Professor of Education
B.A., M ount M ary College, 1985; M.A., Teachers College, 1991; Ed.M., 1993; Ed.D., 1996
$J$ anet H offman
A djunct A ssistant P rofessor of Education
B.A., Boston U niversity, 1975; M.S.W., Columbia School of Social W ork, 1977; Ed.D., Teachers College, 1993

H eidi $H$ ayes J acobs
A djunct A ssociate P rofessor of Education
B.A., University of U tah, 1970; Ed.M., University of M assachusetts, 1976; Ed.D., Teachers College, 1981

J oann J acullo-N oto
A djunct A ssociate P rofessor of Education
B.A., D ouglass College, 1968;

M .A., N ew York University, 1970; Ed.M., Columbia University, 1978; Ed.D., 1980

Sonja de Groot K im
A djunct A ssistant P rofessor of Education
B.A., SU N Y, TheC ollegeat $N$ ew Paltz, 1971; M.S., SU N Y, The College at N ew Paltz, 1976; Ph.D, New York U niversity, 1999

N ancy Kunz
Adjunct Assistant Professor of Education
B.A., SUN Y, Albany, 1990;

DAAD Scholar, University of
Regensburg, Germany, 1991;
M.SEd., University of Penn-
sylvania, 1992; M.S., Columbia
University, 1996; Ph.D.,
Columbia U niversity, 1998
Lori Langer de Ramirez
A djunct A ssistant Professor of Education
B.A., SUN Y, The College at

N ew Paltz, 1990; M.S.,
CU N Y, Queens College, 1994;
Ed.D., Teachers College, 1998
Jed Luchow
A djunct A ssistant P rofessor of Education
B.A., J ohns H opkins, 1968;

M .A., Teachers College, 1970;
Ed.D., 1978
Eileen M arzola
A djunct A ssistant Professor of
Education
B.A., B arnard College, 1979;

M .A., Teachers College, 1972;
Ed.M., 1979; Ed.D., 1985
K aren M egay-N espoli
A djunct A ssistant Professor of Education
B.A., Queens College, 1972,
M.S., 1978; Ed.D., Teachers

College, 1998
Carol Prendergast
A djunct A ssistant Professor of Education
B.S., Syracuse U niversity, 1979; M.S., W heel ock College, 1983; Ed.D., Teachers College, 2000

Judy Randi
A djunct A ssistant Professor of Education
M .A., W esl eyan University, 1972; M.L.S., Southern Connecticut State U niversity, 1980; C.A.S., Fairfield State University, 1988; Ed.D., Teachers College, 1996

Alison Rutter
Lecturer of Education
B.A., Vassar College, 1978;
M.A./M .Ed., Teachers College,

1994; Ed.D., Teachers College, 1999

Robert Southworth
A djund A ssistant Professor of Education
A.B., D artmouth College,

1981; M .Ed., Tufts U niversity,
1983; C.A.S., H arvard Gradu-
ate School of Education, 1990;
Ed.D., Teachers College, 1999
Lisa W right
A djunct A ssociate P rofessor of Education
B.A., M ount Saint M ary, 1980;
M.A., N ew York University,

1981; Ed.D., Columbia Uni-
versity, 1987

## Health and

BEHAVIOR STUDIES
Sharon A kabas
A djund A ssistant P rofessor of Nutrition and Education
A.M., Columbia U niversity,

1980; M.S., 1983; Ph.D., 1988
Lynne Bejoian
A djunct A ssistant Professor of Education
B.A., Smith College, 1977; M.S.Ed., U niversity of Southern California, 1981; Ph.D., 1989

J anice Berchin-W eiss
A djund A ssistant P rofessor of Education
M.S., A delphi U niversity, 1977; Ed.M., Columbia Uni-
versity, 1984; Ph.D., 1988
Bonnie Bernstein
A djunct A ssistant Professor of Nutrition and Education
B.A., Brooklyn College, 1970;
M.A., N ew York University, 1979; Ph.D., 1985

Caroline Camunas
A djund A ssodiate P rofessor of N ursing Education
B.S., Long Island University,

1975; Ed.M., Teachers College,
1981; Ed.D., 1991

Giannina Convertino
A djund A ssistant Professor of Education
B.S., College of Charleston,

1976; M .Ed., Citadel, 1979;
Ed.D., Teachers College, 1999
Gay Culverhouse
A djund A ssistant Professor of Education and Psychology B.A.E., University of Florida, 1969; M.A., Teachers College, 1970; Ed.D., 1982

Craig Demmer
A djund A ssistant Professor of H ealth Education
B.S., University of N atal (South Africa), 1983; M.S., 1984-1985; M.A., Brooklyn College, City University of N ew York, 1994; Ed.D., Teachers College, 1998

Diane Dillon
A djund A ssistant Professor of School P sychol ogy
B.A., H amilton College, 1987;

Ed.M., U niversity of M assa-
chusetts at A mherst, 1993,
Ph.D., 1996
$K$ aren Reznick Dolins
A djund A ssi stant Professor of $N$ utrition
B.A., W ashington University, 1977; M.S., N ew York University, 1981; Ed.D., Teachers
College, 2001
David Erlanger
A djund A ssistant Professor of Education and P sychology
B.M., The Julliard School, 1980; Ph.D., Teachers College, 1996

Robert E. Fullilove III
A djund A ssodiate P rofessor of Health Education B.A., Colgate U niversity, 1966; M.S., Syracuse U niversity, 1972; Ed.D., Columbia University, 1984

Terry T. Fulmer
A djund Professor of N ursing Education
B.S., Skidmore College, 1975;
M.S., Boston College, 1977;

Ph.D., 1983

R oseanne C. G otterbarn
A djunct A ssistant P rofessor of School Psychology
B.A., Fordham University,

1983; M.A., H ofstra U niver-
sity, 1985; Ph.D., 1989
Thomas M. K elly
A djunct A ssistant P rofeesor in Education
M .A ., Teachers College, 1989;
M.Ed., 1990; M.Phil., Colum-
bia University, 1994; Ph.D., 1995

Dolleen-D ay K eohane
A djunct A ssistant Professor of Education
B.A., Pace U niversity, 1974; M.A., N ew York University, 1976; M.A. Teachers College, 1993; M .Phil., Columbia U niversity, 1996; M .Ed., Teachers
College, 1997; Ph.D., Colum-
bia University, 1997
Ishita K hemka
A djunct A ssistant P rofessor of Education
B.A., University of Delhi,

India, 1989; M.A., Teachers
College, 1992; Ph.D., Teachers
College, 1997

## Michael K oski

A djunct A ssistant P rofessor of P sychology and Education B.S., N ew York University, 1969; M.A., H unter College, 1973; Ed.M ., Teachers College, 1990; Ph.D., Teachers College, 1998

Barbara K rainovich-M iller
A djunct Professor of $N$ ursing Education
R.N., St. Vincent's H ospital School of N ursing, 1963; B.S., H unter College, 1971; M.S., 1972; Ed.D., Teachers College, 1988

## Susan Lipokowitz

A djunct A ssistant P rofessor of Education
B.A., H unter College, 1976; M.S., Fordam U niversity, 1980; M .Ed., Bank Street College, 1990; Ed.D., Teachers College, 2000

Toni Liquori
A djunct A ssociate P rofessor of Nutrition
B.A., Emmanuel College, 1972; M.P.H ., Columbia University, 1979; Ed.D., Teachers College, 1995
C. Ronald MacK enzie

Visiting A ssodate P rofessor of H ealth Education
B.Sc., W estern Ontario, 1974;
M.D., Calgary, 1977

Eugene McM ahon
A djunct A ssistant Professor of
Education and P sychology
B.S., City College of N ew

York, 1972; M.S., H unter Col-
lege, 1976; Ed.D., Columbia
U niversity, 1985
Sheila O'Shea M elli
A djunct A ssistant Professor of
$N$ ursing Education
B.S., Boston College, 1967;
M.S., Seton H all University,

1981; Ed.D., Columbia Uni-
versity, 1987
Laura M enikoff
A djunct A ssistant Professor of P sychology and Education
B.A., H amilton (K irkland College), 1973; M.S., Bank Street
College, 1981; M.S., Queens
College, 1992; Ph.D., The
Graduate Center of the City of N ew York, 1999

H oward M eyer
A djunct A ssistant Professor of Education
B.S., N ew York University, 1964; M.A., 1968; Ph.D.,
W alden U niversity, 1972
Stephen M organstern
A djunct A ssistant Professor of Education
B.S., Brooklyn College, 1961;
B.S., Pennsylvania College,

1969; Ph.D., 1970
M arieT. O'Toole
A djunct A ssociate P rofessor of N ursing Education
B.S.N., University of Pennsylvania, 1974, M.S.N ., 1977;
Ed.D., Rutgers, 1992

Christine E. Pawelski
A djund A ssistant Professor of Special Education
B.M., Alverno College, 1972;

M .A., Teachers College, 1976,
Ed.D., 1985
Clarence E. Pearson
A djund Professor of $H$ ealth Education
B.S., N orthern Illinois U niver-
sity, 1950; M.P.H., N orth Car-
ol ina U niversity, 1952
M argaret G.E. Peterson
A djund A ssodiate P rofessor of
H ealth Education
B.S., Durham U niversity,

1960; Ph.D., 1967
John T. Pinto
A djund A ssociate P rofessor of Nutrition and Education B.S., St. J ohn Fisher College, 1968; Ph.D., U niversity of
M edicine and Dentistry of
N ew Jersey, 1973
Russell R osen
A djund A ssi stant P rofessor of Special Education
Co-coordinator of the P rogram in
Teaching A merican Sign Language
in a F oreign Language
A.B., University of Chicago,

1978; A .M. ., Columbia U niver-
sity, 1983; Ph.D., 1996

## Barbara Sandberg

A djunct A ssistant P rofessor of P sychology and Education (Educational data forthcoming)

Mitchell Schorow
A djund A ssodiate P rofessor of Nutrition and Education
B.A., R oosevelt University, 1950; M.A., N orthwestern
University, 1961; Ph.D., Uni-
versity of U tah, 1972

## M errill Simpson

A djund A ssistant P rofessor of Nutrition and Education B.S., University of Puget Sound, Tacoma, W A, 1990; M.Phil. and M.S., Columbia U niversity, 1991-94; Ph.D., 1997

Special Term Faculty

Lora A. Sporny
A djund A ssociate P rofessor of
N utrition and Education
B.S., U niversity of Pittsburgh,

1985; M.A., N ew York U ni-
versity, 1987; M .Ed., Teachers
College, 1988; Ed.D., 1992
Virginia S. Stolarski
A djund A ssistant P rofessor of Education
Co-D irector of the Program for
Learners with B lindness and Visual Impairment
B.A., State U niversity of N ew York (Buffalo), 1986; A.M., Columbia University, 1987;
Ed.M., 1989; Ed.D., 1991
J anet Twyman
A djund A ssistant Professor of Special Education
B.A., University of K entucky, 1984; M.S., 1992; M.Phil., Columbia U niversity, 1996;
Ph.D., 1996
Connie N . Vance
Visiting A ssociate P rofessor of
N ursing Education
B.S.N ., W ashington U niver-
sity, 1966; M.S.N ., 1968;
Ed.D., Teachers College, 1977
Elizabeth A. W alker
Visiting A ssociate P rofessor of H ealth Education
B.S., Chestnut Hill College, 1968; M.A., N otre Dame College, 1969; B.S., Creighton University, 1976; D.N.Sc., Catholic State U niversity, 1988

Shannon W halen
A djund A ssistant Professor of H ealth Education B.S., University of Delaware, 1992; M.A., N ew York University, 1995; M.S., Teachers
College, 1999; Ed.D, 1999
Randi W olf
Research A ssistant Professor of H ealth Education
B.S., Cornell University, 1991;
M.P.H ., U niversity of Pitts-
burgh, 1995; Ph.D., 1998

Patricia A. Zybert
A djunct A ssociate P rofessor of H ealth Education
B.A., Barnard College, 1973;

M .P.H ., Columbia U niversity,
1980; M .Phil., 1986, Ph.D ., 1986

Human Development
Ivo Antoniazzi
A djunct A ssistant Professor of Statistics and Education B.Sc., U niversidade de Caxias do Sul, RS (Brazil), 1970; M .A., State U niversity of N ew York (Buffalo), 1974; Ed.D., Teachers College, 1982

Hugh F. Cline
A djunct Professor of P sychology and Education
B.A., Pennsylvania State U niversity, 1956, M.S.S., Stockholms U niversitetet (Sweden), 1961; Ph.D., H arvard U niversity, 1966

## Linda H irsch

A djunct Professor of Education B.A., City U niversity of $N$ en York, 1971; M .A ., StateU niversity of $N$ ew Y ork (Stony B rook) 1972; Ph.D., N ew York U niversity, 1986

MeryleM. Kaplan A djunct A ssistant P rofessor of P sychology and Education B.A., D ouglass College, 1968; M .A., U niversity of Connecticut, 1971; Ph.D., Teachers College, 1988

Tara L. K uther A djunct A ssistant P rofessor of P sychology and Education B.A., W estern Connecticut State U niversity, 1993; M.A., Fordham U niversity, 1995;
Ph.D., 1998
John N. Larson
A djunct A ssistant P rofessor of Computing and Education
B.A., Florida State U niversity, 1970, M.S., 1976; Ph.D., 1986

Laurie Miller-M cN eill
A djunct A ssistant Professor of Politics and Education
B.S., Boston U niversity, 1980;
M.A., Teachers College, 1983;

Ph.D., Columbia University, 1989

Lucia F. O'Sullivan
A djunct A ssistant Professor of P sychology and Education
B.A., University of N ew Brunswick (Canada), 1987;
M.A., 1991; Ph.D., Bowling

Green University, 1994
Alan R. Sadovnik
Visiting A ssociate P rofessor of Education
B.A., Queens, 1975; M.A.,

N ew York University, 1979;
Ph.D., 1983
Dale T. Snauwaert
Visiting A ssistant Professor of Politics and Education B.A., U niversity of Illinois (U rbana-Champaign), 1983;
M.A., 1988; Ph.D., 1990

Elizabeth C. Vozzola
A djunct A ssistant Professor of P sychol ogy and Education B.S., M arion College, 1980;
M.S., W inona State U niversity, 1984; M .A., Fordham U niversity, 1992; Ph.D., 1994

Bruce L. Wilson
A djunct A ssociate P rofessor of Sociology and Education
B.A., Stanford U niversity,

1972; M.A., 1978; Ph.D., 1979

International and
Transcultural
Studies

## Robert W. Bailey

A djunct A ssociate P rofessor of
Politics and Education
A.B., Fordham University, 1974; Ph.D., G raduate Center, City U niversity of N ew York, 1982

Joseph Paul M artin
A djund Professor of Education
Ph.L., A ngelicum, 1960;
S.T.L., 1964; A.M., Columbia

University, 1968; Ph.D., 1973
Betty Reardon
A djund A ssodiate P rofessor of Education
B.A., W heaton College, 1951;
M.A., N ew York University,

1957; Ed.D., Columbia Uni-
versity, 1986
Dale Snauwaert
Visiting A ssistant Professor of
Politics and Education
B.A., University of Illinois
(U rbana-Champaign), 1983;
M.A., 1988; Ph.D., 1990

Mathematics, Science
and Technology
Jamsheed Akrami
Visiting A ssistant Professor of Communication and Education M .A., Columbia University, 1979; Ed.D., 1986

H oward Budin
A djund A ssistant Professor of Computing and Education
B.A., Columbia University, 1968; M.S., City College of
N ew York, 1975; Ed.D.,
Teachers College, 1996
Jose R. Fernandez
A djund A ssistant Professor of Science Education
B.S., U niversity of Puerto

Rico, 1988; M.A., Teachers College, 1992; Ph.D., Pennsyl-
vania State U niversity, 1999
Bernard R obert Gifford
Sussman Visiting Professor of
Education
Ph.D., U niversity of R ochester
M edical School, 1972
Shelley V. Goldman
A djunt A ssociate P rofessor of Education
B.S., State University of N ew

York at Oneonta, 1972; M.S., Florida International Univerisity, 1978; M.Ed., Teachers College, 1979; Ed.D., 1982

Mark David K eegan
A djund A ssistant P rofessor of Computing and Education B.A., University of Washington, 1980; M.A., Columbia
University, 1988; Ed.D., 1992
Susan Lowes
A djund P rofessor of Education
B.A., Goucher College, 1962; M.Phil., Teachers College,

1993; Ph.D., Columbia Uni-
versity, 1994
Frank A. M oretti
A djund A ssodiate P rofessor of Education
B.A., St. Bonaventure U niversity, 1965; M.A., Coumbia Univeristy, 1967; M.Phil., 1976; Ph.D., 1983; M.A., Teachers College, 1973; M.Ed. 1976

Michael J. Passow
A djund P rofessor of Science Education
B.A., Columbia Univerty, 1970; M.A.T, Teachers College, 1971; Ed.D. 1974, M. Ed., 1987

K aren E.S. Phillips
A djund A ssistant Professor of Science E ducation
B.S., Barry University, 1995;
M.A., Columbia U niversity,

1996, M.Phil., Ph.D., 2000
Henry O. Pollak
Visiting Professor of $M$ athematics
Education
B.A., Yale U niversity, 1947;
M.A., H arvard University,

1948; Ph.D., 1951
Philip Smith
Visiting Professor of M athematics Education
B.A., D artmouth College, 1962; M.S., Stanford U niversity, 1964; Ph.D., Columbia University, 1973

R obert V. Steiner
A djunct A ssistant Professor of Science Education
B.S., UCLA, Berkeley, 1978;
M.S., Yale, 1980, Ph.D., 1985

Robin S. Stern
A djunct A ssistant Professor of Communication and Education B.A., N ew York Univerity, 1973, Ph.D., 1994; M.A., N ew
School of Social Research, 1979
Organization and
Leadership
Dallas Bauman III
A djunct A ssistant Professor of H igher Education
B.A., Towson State U niversity,

1967; M.S., Indiana U niversity,
1969; Ph.D., Illinois State
U ni versity, 1981
J eanne E. Bitterman
Lecturer of $A$ dult and Continuing Education
B.A., City College of New York, 1973; M.A., N ew York University, 1977; M.A., Columbia University, 1980; Ed.D., 1983

## Isora Bosch

A djunct A ssistant P rofessor of A dult and Continuing Education B.A., U niversity of Psychology, 1969, Diplomate, Central University of M adrid, 1973; M.A., Teachers College, 1982; Ed.D., 1987; M.S.W., N ew York University, 1995

Sarah J. Brazaitis
A djunct A ssistant P rofessor of P sychology and Education B.A., University of Pennsylvania, 1990; Ed.M., Teachers
College, 1993; Ph.D., 1998
Stephen David Brookfield A djunct Professor of $A$ dult and C ontinuing E ducation
B.A., Lanchester Polytechnic Institute, 1970; M .A., R eading, 1974; Ph.D., Leicester, 1980

Patrick P. Chang
A djunct A ssistant Professor of Higher Education
B.A., SUN Y (Stony Brook), 1980; M .A., Teachers College, 1981; M.Ed., 1982; Ed.D., 1989

M onica Christensen
A djunct A ssistant Professor of Higher Education
B.A., D artmouth College,

1989; M.A., Teachers College,
1992; M.Ed., 1994; Ed.D.,
1997
Allan Church
A djunct A ssistant Professor of P sychology and Education
B.A., Connecticut College,

1988; M.A., Teachers College,
1991; Ph.D., 1994
Tara A. Cortes
A djunct A ssociate P rofessor of
N ursing Education
B.S.N ., Villanova U niversity,

1967; M.A., N ew York Uni-
versity, 1971; Ph.D., N ew
York University, 1976
Christine Coughlin
A djunct A ssistant Professor of N ursing Education
B.S.N ., A del phi University,

1978; M.A., N ew York Uni-
versity, 1984; Ed.D., Teachers
College, 1998
Paul Edelson
A djunct Professor of $A$ dult and
C ontinuing Education
B.A., Brooklyn College, 1966;
M.A., N ew York University,

1970; Ed.D., 1973
Philip E. Fey
A djunct A ssociate P rofessor of
$A$ dult and Continuing Education
B.A., Fordham University,

1958, J.D., 1961; M.A.,
Columbia U niversity, 1967;
Ed.D., 1976
K evilleC. Frederickson
A djunct Professor of $N$ ursing
Education
B.S., Columbia University,

1964; Ed.M., 1971; Ed.D.,
1975

Phillip Geiger
A djund A ssistant Professor of Education
B.A., Trenton State College, 1970; M .A., Teachers College, 1972; M.Ed., 1978; Ed.D., 1980; M.B.A., The W harton School of Finance, 1987

Virginia G. Gonzalez
A djund A ssistant P rofessor of A dult and Continuing Education
B.A., M oravian College, 1972;

Ed.M., Boston U niversity,
1973; M .A., Teachers College,
1992; Ed.D., 1995
Irving H amer, Jr.
A djund A ssistant Professor of Education
B.A., Ottawa University, 1970;
M.Ed., H arvard U niversity,

1974; Ed.D., 1978
Joseph Hankin
A djund Professor of H igher Education
B.A., City College of N ew York, 1961; M.A., Columbia
University, 1962; Ed.D., 1967
W endy L. H eckelman
A djund A ssistant P rofessor of P sychology and Education B.A., University of Miami, 1983; M .A., Teachers College, 1986; Ph.D., 1992

Miriam W. J avitch
A djunct A ssistant Professor of Psychology and Education B.A., M cGill University, 1979;
M.B.A., Columbia University, 1988; Ph.D., Teachers College, 1997

William H. Johnson
A djund A ssistant P rofessor of Education
B.A., St. Bernard's College, 1966; M .A., Fairfield U niversity, 1969; Ed.M., Teachers College, 1974; Ed.D., 1976

Harvey $K$ aye
A djund A ssodiate P rofessor of $A$ dult and $C$ ontinuing Education
B.A., City University of N ew

York, 1976; M.A., Columbia
University, 1983; M .Ed., 1992;
Ed.D., 1992
Arthur M. Langer
A djund A ssistant Professor of H igher Education
BA, Queens College, CUNY, 1979; M BA , Iona, 1987;
Ed.D., Teachers College, 1999
Georgene G. Lasko-W eisenfeld
A djundt A ssistant Professor of Education
B.S., N ew York University, 1988; M.S., Bank Street College, 1990; Ed.M., Teachers
College, 1994; Ed.D., 1995
Barbara M acauley
A djund A ssistant Professor of $A$ dult and $C$ ontinuing Education
B.S., Springfield College, 1971; M .Ed., W orcester State
College, 1977; M.A., Teachers
College, 1993; Ed.D., 1995
Gibran M ajdalany
A djund A ssistant Professor of Education
B.A., U niversity of $K$ ansas, 1979; M .A., Teachers College, 1981; Ed.M., 1982; Ed.D., 1995

## Susan M eyer

A djund A ssistant Professor of A dult and Continuing Education B.A., State U niversity of $N$ ew York, Albany, 1967, M.A., N ew York University, 1969;
M.A., 1977; Ed.D., Teachers College, 1986

Lucienne M uller A djund A ssistant Professor of A dult and Continuing Education Licence, University of Geneve,1973, M .A., Teachers College, 1983; Ed.D., 1992

Christine L. Persico
A djunct A ssistant Professor of Education
B.A., Queens College, City

University of N ew York, 1974;
M.S.W., H unter College, City

University of N ew York, 1978;
Ed.D., Teachers College, 1988
Julie R atner
A djunct A ssistant P rofessor of H igher Education
B. A., Simmons College, 1968;

M .L.S., Columbia U niversity,
1970; M .A., Teachers College,
1992; Ed.D., 1996
Michael Rebell
A djunct A ssociate P rofessor of Education
A.B., H arvard College, 1965;

LL.B., YaleLaw School, 1970
Vincent T. Rudan
A djunct A ssistant Professor of N ursing Education
B.S.N ., State U niversity of

N ew York, 1977; M.A., N ew
York University, 1979; Ed.D.,
Teachers College, 1998
Sandra V. Sandy
A djunct A ssistant P rofessor of
P sychology and Education
Ph.D., Teachers College
Richard E. Segal
A djunct A ssistant P rofessor of Education
B.A., Indiana U niversity, 1967;

M .A., U niversity of Connecti-
cut, 1971, M.B.A., 1983;
Ed.D., Teachers College, 1994
Franceska B. Smith
A djunct A ssistant P rofessor of A dult and Continuing Education
B.A., R adcliffe College, 1967;

M .A., Teachers College, 1973;
Ed.D., 1983
Barbara V. Strobert
A djunct A ssistant P rofessor of Education
B.A., M ontclair State College,

1959; M.A., J ersey City State
College, 1969; Ed.D., Teachers
College,1990

R oss Tartell
A djunct A ssistant Professor of P sychol ogy and Education
B.A., H ofstra U niversity, 1974;

M .A., Teachers College, 1976;
M.B.A., 1981; Ph.D., 1984

Amy S. Taylor
Lecturer of P sychology and
E ducation
B.A., Dickinson College, 1990;

M .A., Teachers College, 1995;
Ph.D., 2000
Amy A. Titusr
A djunct A ssistant Professor of
Education
B.A., U nion College, 1975;

M .A., U niversity of M innesota,
1979; Ed.D., Teachers College,
1988
Elizabeth H. Tucker
A djunct A ssistant Professor of
$N$ ursing Education
B.S.N ., Pace U niversity, 1977;

Ed.M., Columbia U niversity,
1979; Ed.D., 1983
Ruud van der Veen
A djunct A ssociate Professor of
A dult and Continuing Education
B.S., K atholieke U niversiteit

N ijmegen, The N etherlands,
1966; M.S., 1969; Ph.D., 1982
Marie P. Volpe
A djunct A ssistant P rofessor of A dult and Continuing Education
A.A., Elizabeth Seton College,

1979; B.S., I ona College, 1981;
M .A., Columbia University,
1983; Ed.D., 1992
J anine W acl awski
A djunct A ssistant Professor of
P sychology and Education
B.A., SUN Y, Stony Brook, 1987; Ph.D., Teachers College, 1996

Rita Reis W ieczorek
A djunct Professor of $N$ ursing
E ducation
B.S., College of Mount St.

J oseph, 1964; M.A., N ew York
U niversity, 1966; Ed.D.,
Teachers College, 1975

William G. Anderson. Professor
Emeritus of Education
B.S., Brooklyn College, 1955;
M.A., Ohio State, 1957; Ed.D.,

Teachers College, 1961
Thurston A. Atkins. A ssociate
P rofessor of Education
B.S., Towson State, 1952;
M.A., Teachers College, 1962,

Ed.D., 1968
Winthrop R. Adkins. Professor Emeritus of P sychology and Education
A.B., Princeton, 1955; M.A., Columbia, Ph.D., 1963

R onald J. Baken. Professor
Emeritus of Speech Science
A.B., Columbia College, 1963;
M.S., Municipal University of Omaha, 1965; Ph.D., Columbia, 1969

Arno A. Bellack. Professor
Emeritus of Education
B.S., W isconsin, 1940; A.M., Columbia, 1946, Ed.D., 1952;
Ph.D., h.c., Helsinki, 1977;
Ph.D., h.c., U ppsala, 1977
Leonard S. Blackman. Professor
Emeritus of Education and
Psychology
A.B., Syracuse, 1950, M.S.
(Ed.), 1951; Ph.D., Illinois, 1954

Ann E. Boehm. Professor Emeritus of Psychology and Education B.A., W heaton College, 1960; M.A., Teachers College, 1963; Ph.D., Columbia, 1966

Lois Bloom. Edward Lee ThorndikeP rofessor E meritus of Psychology and Education B.A., Pennsylvania State, 1956; M.A., University of Maryland, 1958; Ph.D., Columbia, 1968

Robert A. Bone. P rofessor Emeitus of English Education
A.B., Yale, 1945, A.M., 1949, Ph.D., 1955

N orman Dale Bryant. Professor Emeritus of Psychology and Education
A.B., N orth Texas State, 1945, A.M., 1951; Ph.D., Texas, 1955
R. Freeman Butts. William F. Russel $\mid$ P rofessor Emeitus in the F oundations of Education
A.B., Wisconsin, 1931, A.M., 1932, Ph.D., 1935

H arold Cook. Professor Emeritus of Psychology and Education B.A., California State U niversity at Los A ngeles, 1959; Ph.D., California, Los Angeles, 1967

Frances Partridge Connor. Richard M arch H oe P rofessor Emeritus of Education
A.B., St. J oseph's, 1940; A.M., Columbia, 1948, Ed.D., 1953; L.H.D., N ew Rochelle, 1974

Robert L. Crain. Professor Emeitus of Sociology and Education B.A., University of Louisville, 1958; Ph.D., University of Chicago, 1964

Joel R. Davitz. Professor Emeritus of P sychol ogy and Education B.S., Illinois, 1947; A.M., Columbia, 1949, Ph.D., 1951

M orton Deutsch. Edward Lœ Thorndike Professor Emeritus of Psychology and Education B.S., City College of New York, 1939; M.S.(hon.), Pennsylvania, 1940; Ph.D., M assachusetts Institute of Technology, 1948; L.H.D., City College of N ew York, 1990

John Fanselow. Professor Emeritus of L anguage and Education B.A., N orthern IIlinois, 1960, M.A., 1961; Ph.D., Teachers College, 1971

John H. Fischer. Professor Emeritus of Education and President Emertus
B.S., Johns H opkins, 1940;
A.M., Columbia, 1949, Ed.D.,

1951; L.H.D., 1964, Cleveland
State, 1968, Towson State,
1973; LL.D., M organ State,
1955, Goucher, 1959, A kron,
1963; Litt.D., Jewish Theolog-
ical Seminary of America,
1968, M uskingum, 1969
Daniel P. Girard. Professor Emeritus of F rench
A.B., Columbia, 1926, A.M., 1929; Diplome de la Sorbonne, 1928

Ruth Z. Gold. A ssodate P rofessor of Statistics and Education A.B., H unter, 1941; A.M., Columbia, 1943, Ph.D., 1960

J oseph C. Grannis. Professor E meritus of Education
A.B., H arvard, 1954, M.A.T., 1955; Ph.D., W ashington, 1965

M axine Greene. William F. Russell Professor Emeitus in the F oundations of Education A.B., Barnard, 1938; A.M., N ew York University, 1949; Ph.D., 1955; L.H.D., Lehigh, 1975; H ofstra, 1985; Bank
Street, 1987; Col orado, 1990;
Goddard, 1991; Indiana, 1993
Gary A. Griffin. Professor Emeritus of Education
B.A., M.Ed., Ed.D., University of California at Los Angeles

Joan Dye Gussow. M ary Swartz R ose P rofessor Emeitus of N utrition and Education
A.B., Pomona, 1950; Ed.M., Columbia, 1974, Ed.D., 1975

Bernard Gutin. Professor Emeritus of A pplied Physiology and Education
A.B., H unter, 1960; A.M., N ew York University, 1961, Ph.D., 1965

Elizabeth P. Hagen. Edward L œ Thorndike P rofessor E meitus of Psychology and Education
A.B., Western M aryland, 1936;
A.M., Columbia, 1948, Ph.D., 1952

K enneth Frederick Herrold. Professor E meritus of Psychology and Education
A.B., Bucknell, 1936;
M.S.P.H ., Michigan, 1940;

Ed.D., Columbia, 1948
Joseph R. Higgins. Professor
Emeritus of Education
A.B., San Fernando Valley

State, 1960; M.S., U tah State,
1962; Ed.D., Stanford, 1970
Clifford A. Hill. A rthur I. G ates Professor E meritus of Language and Education
B.A., W heaton College, 1961;
M.A., Columbia, 1963; Ph.D., Wisconsin, 1971

H arvey A. H ornstein. Professor E meritus of $P$ sychology and Education
B.B.A., Baruch College of the City University of N ew York; M.A., Teachers Col lege, 1962, Ph.D., 1964

Chang-Tu Hu. Professor Emeritus of H istory and Education A.B., Fu-Tan (China), 1942; Ph.D., W ashington, 1953

D wayne E. H uebner. Professor
Emeritus of Education
A.M., Chicago, 1949; Ph.D., Wisconsin, 1959

Francis A. J. I anni. Professor
E meritus of Education
B.S., Pennsylvania State, 1949,
A.M., 1950, Ph.D., 1952

Carroll F. Johnson. Professor
Emeritus of Education
A.B., Chattanooga, 1935; M.S., Georgia, 1940; A.M., Colum-
bia, 1945, Ed.D., 1950
Milton A. K aplan. Professor
Emeritus of English
B.S.S., City College, 1929,
M.S., 1934; A.M., Columbia,

1937, Ph.D., 1946
H enry K avkewitz. Professor
E meritus of P sychology and Education
B.S.S., City College, 1934,
M.S., 1935; Ph.D., N ew York

University, 1954
Frederick D. K ershner, Jr. Professor Emeritus of H istory
A.B., Butler, 1937; A.M., W isconsin, 1939, Ph.D., 1950

U rsula K irk. A ssociate P rofessor of $N$ euroscience and $E$ ducation B.A., M anhattanville, 1952, M.A., 1962; M.S., I ona, 1970; M.S., SUNY Albany, 1972; Ed.M., Teachers College, 1976, Ed.D., 1978; Certificate in Pediatric N europsychology, N ew England Medical Center, Tufts U niversity, 1978.

Phil C. Lange. Professor Emeritus of $E$ ducation
B.S., W isconsin, 1934, A.M., 1936, Ph.D., 1941

Thomas A. Leemon. A ssociate P rofessor of H igher Education A.B., Stanford, 1956; A.M ., 1957; Ed.D., Columbia, 1968

Ann Lieberman. Professor Emeritus of Education
B.A., California, Los Angeles, 1957; M.A., California State U niversity at N orthridge, 1966; Ed.D., California, Los Angeles, 1969

Richard H. Lindeman. Professor
Emeritus of P sychology and
Education
B.S., Beloit, 1949; M.S., W isconsin, 1951, Ph.D., 1958

M argaret Lindsey. Professor
Emeritus of Education
B.S., State Teachers College
(Shippensburg), 1934; M.Ed., Pennsylvania State, 1939;
Ed.D., Columbia, 1946;
Litt.D., Eastern K entucky, 1976

Gordon N. M ackenzie. Professor Emeritus of Education
B.S., Minnesota, 1929, A.M., 1929; Ed.D., Stanford, 1940

William J. M ahoney. Professor
E meritus of $A$ rt and $E$ ducation
B.S., Columbia, 1948, A.M., 1949, Ed.D., 1957

James L. M alfetti. Professor
Emeritus of Education
B.S., Columbia, 1947, A.M., 1948, Ed.D., 1951

Elizabeth M. M aloney. A ssociate Professor of $N$ ursing Education B.S., Columbia, 1951, A.M., 1952, Ed.D., 1966

Dale M ann. Professor Emeritus of Education
A.B., University of California at Berkeley, 1963; Ph.D., Teachers College, 1971

Eugene V. M artin. A ssociate Professor of $N$ ursing Education B.A., Brooklyn College, 1937; M .A., N ew York University, 1947; Ph.D., California (Berkeley), 1965

Jack David M ezirow. Professor E meritus of $A$ dult and $C$ ontinuing Education
B.S., Minnesota, 1945, A.M., 1946; Ed.D., California (Los Angeles), 1955

Mildred L. M ontag. Professor E meritus of $N$ ursing Education A.B., H amline, 1930; B.S., Minnesota, 1933; A.M., Columbia, 1938, Ed.D., 1950; LL.D., Bridgeport, 1967, State University of N ew York, 1981; L.H .D., Adelphi, 1968; D.Sc., Eastern K entucky, 1981

Roger A. M yers. Richard M arch H oe P rofessor E meritus of P sychology and Education
A.B., B radley, 1952; A.M., Ohio State, 1955, Ph.D ., 1959

H arold J. N oah. G ardner Cowles Professor Emeritus of Economics and Education
B.Sc. (Econ.), London, 1946, A cademic Diploma in Education, 1954; Ph.D., Columbia, 1964

Robert Pace. Professor E meritus of $M$ usic Education
B.S., Juilliard College, 1948;
A.M., Columbia, 1949, Ed.D., 1951

Philip H. Phenix. A rthur I. $G$ ates $P$ rofessor E meitus of Philosophy and Education
A.B., Princeton, 1934; M.Div., Union Theological Seminary,
1942; Ph.D., Columbia, 1950;
L.H .D., Alderson-Broaddus, 1970
E. Edmund Reutter, Jr. Professor E meritus of Education A.B., J ohns H opkins, 1944; A.M., Teachers College, 1948, Ph.D., 1950

Seymour Rigrodsky. Professor E meritus of Speech P athol ogy A.B., Brooklyn, 1952; A.M., 1955, Ph.D., Purdue, 1959

H enry J. Rissetto. Professor E meritus of Education B.S., N ew Jersey State (Trenton), 1949; A.M., Columbia, 1953, Ed.D., 1957

Paul C. R osenbloom. Professor
E meritus of $M$ athematics
B.S., Pennsylvania, 1941;

Ph.D., Stanford, 1944
Ernst Z. Rothkopf. Clevdand E. D odge P rofessor E meritus of Te ecommunications and Education A.B., Syracuse, 1948; M .A., U niversity of Connecticut, 1951, Ph.D., 1953

M ordecadi Rubin. Professor
E meritus of Spanish
A.B., Rutgers, 1955; Ph.D., University of M aryland, 1961

R obert J. Schaefer. Professor
E meritus of Education
A.B., Columbia, 1939, A.M., 1946, Ph.D., 1950

R osal ea A. Schonbar. Professor
E meritus of P sychology and
Education
A.B., Smith, 1940; A.M.,

Columbia, 1942, Ph.D., 1945
Justin Schorr. Professor E meritus of $A$ rt and Education
B.S.S., City College, 1950;
A.M., Columbia, 1951, Ed.D., 1962

M argaret Jo Shepherd. Professor
E meritus of Education
B.S., Illinois, Urbana 1955;

Ed.M., Illinois, 1958; Ed.D.,
Teachers College, 1968
Francis Shoemaker. Pr ofessor
Emeritus of English
A.B., Lehigh, 1931; A.M., Colorado State, 1937; Ph.D., Columbia, 1942

Douglas Sloan. Professor Emeritus of H istory and Education B.A., Southern M ethodist University, 1955; B.D., Yale University, 1958; Ph.D., Teachers College, Columbia U niversity, 1969

Frank L. Smith, Jr. A ssociate P rofessor of $E$ ducation
B.A., Yale, 1958; M.S., Memphis State U niversity, 1960; Ed.D., Teachers College, 1965

Jonas F. Soltis. William H ørd Kil patrick P rofessor E meitus of Phil osophy and Education A.B., Connecticut, 1956;
M.A.T., W esleyan, 1958;

Ed.D., H arvard, 1964
Marvin Sontag. A ssodate P rofessor of Psychology and Education B.A., Brooklyn College of the City University of New York, 1954; Ph.D., N ew York University, 1967

William Summerscales. D irector of $D$ evd opment and $A$ ssociate Professor of Education
A.B., Eastern N azarene, 1944; M.Div., San Francisco Theological Seminary, 1956; A.M., Toronto, 1966; Ph.D., Columbia, 1969

A braham J. Tannenbaum.
Professor Emeitus of Education and P sychology
A.B., Brooklyn, 1946; A.M., Columbia, 1948, Ph.D., 1960

Trygve R. Tholfsen. P rofessor
E meritus of H istory and E ducation A.B., Yale, 1948, Ph.D., 1952

Albert S. Thompson. Professor
E meritus of Psychology and Education
A.B., U rsinus, 1931; A.M., Pennsylvania, 1934, Ph.D., 1943

Craig A. Timberlake. A ssodiate Professor of $M$ usic Education A.B., Southern M ethodist, 1942; A.M., Columbia, 1963, Ed.D., 1966

K enneth H. Toepfer. Professor
Emeritus of H ighe Education
A.B., Cornell (I owa), 1951;
M.I.A., Columbia, 1953,

Ph.D., 1966

Paul Vahanian. A ssociate Professor of P sychology and Education A.B., Florida Southern, 1949;
A.M., Columbia, 1952, Ed.D., 1957

Charles W. Walton. Professor
Emeritus of $M$ usic $E$ ducation
M.B., Oberlin, 1938; M.M., Cincinnati Conservatory, 1939; A.M., Columbia, 1947, Ed.D., 1951

Sloan R. W ayland. Professor
Emeritus of Sociol ogy and Education
A.B., H endrix, 1940; A.M., Louisiana State, 1941; Ph.D., Columbia, 1951

Richard M. W olf. Professor
Emeritus of Psychology and Education
B.A., Antioch College, 1957;

Ed.M., University of Buffalo,
1959; Ph.D., University of
Chicago, 1964
Warren Yasso. Professor E meitus of $N$ atural Sciences
B.S., Brooklyn College; A.M., Columbia, 1961, Ph.D., 1964

## tRUSTEES

Patricia M. Cloherty, Co-C hair
Antonia M. Grumbach, Co-Chair
J ohn K lingenstein, Vice Chair
James W. B. Benkard
Beverly Chell
J ames P. Comer, M.D.
J oyce B. Cowin
Gay Culverhouse J oseph Dionne
Thomas W. Evans
Barbara F. G oodman
Ruth L. Gottesman J ohn W. H yland, Jr.
Elliot S. J affe
A. Clark Johnson, Jr.

A rthur Levine
Roland M. Machold
Claude A. M ayberry, Jr.
J ohn M errow
Lorraine M onroe
Enid W. M orse
R onald A. Nichol son
$J$ effrey Peek
William D. Rueckert
George Rupp
H. M arshall Schwarz

Laurie Tisch Sussman
Gillian Toledo
Sue Ann Weinberg
Arthur Zankel

## HONORARY \& EM ERITI TRUSTEES

J. Richard M unro

D onald Stewart
M rs. Thomas Thacher
Douglas W illiams
Thomas H. K ean
M orris W. Offit
Elihu Rose

## OFFICERS

George Rupp, Ph.D.
President of the U niversity
Arthur Levine, Ph.D.
President of the College
Darlyne Bailey, Ph.D.
Vice President of A cademic A ffairs and $D$ ean

Fred A. Schnur, B.B.A., C.P.A.
Vice $P$ resident for $F$ inanceand
Administration
Joseph S. Brosnan, Ed.D.
Vice President of $D$ eve opment and External A ffairs

Scott Fahey, M.Ed.
Sectetary of the Col legeand A ssistant to the President

## TABLE OF CONTENTS

100 Course Numbering
101 HEGIS Codes
103 Admissions Application Deadlines
105 Department of Arts and Humanities
Arts, 102
Art and Art Education, 102
Arts Administration, 107
Dance and Dance Education, 109
Music and M usic Education, 111
H umanities, 121
Applied Linguistics, 121
H istory and Education, 124
Philosophy and Education, 125
Religion and Education, 127
Social Studies, 128
Teaching of English and English Education, 132
Teaching of English to Speakers of Other Languages (TESOL), 136
Teaching of Spanish, 140
143 Department of Biobehavioral Studies
Applied Physiology, 144
M otor Learning, 144
Speech-Language Pathology and
Audiology, 148
154 Department of Counseling and Clinical Psychology
Psychological Counseling
(master's), 154
Counseling Psychology (doctoral), 154
Clinical Psychology (Ph.D. program), 160
Psychology in Education
(master's), 165
166 Department of Curriculum and Teaching
Curriculum and Teaching, 168
Early Childhood Education, 169
Early Childhood Special Education, 170
Elementary/Childhood Education, Preservice, 171
Giftedness, 172
Learning Disabilities, 173
Reading and Learning Disabilities, 174

181 Department of Health
and Behavior Studies
Applied Educational Psychology, 182
Neurosciences and Education, 182
Reading Specialist, 185
Reading and Learning
Disabilities, 186
School Psychology, 186
H eal th Studies, 190
H ealth Education, 190
N ursing Education, 194
Nutrition and Education, 197
Applied Physiology and
Nutrition, 201
Physical Education, 202
Special Education, 203
Administration of Special Education, 203
Behavior Disorders, 204
Blindness and Visual Impairment, 204
Cross Categorical Studies, 204
Guidance and H abilitation, 204
H earing Impai rment, 204
Instructional Practice, 204
M ental Retardation, 204
Physical Disabilities, 204
Supervision of Special
Education, 204
Teaching of American Sign Language as a Foreign Language, 212

214 Department of Human Development
Cognitive Studies in Education, 214
Developmental Psychology, 219, 220
M easurement, Evaluation and Statistics, 223
Politics and Education, 225
Sociology and Education, 228
231 Department of International and Transcultural Studies
Anthropology and Education, 236
A pplied Anthropology, 236
Comparative and International
Education/International Educational Development, 231
Bilingual/Bicultural Education, 239
Economics and Education, 242

246 Department of Mathematics, Science, and Technology
Communication and Education, 246
Computing and Education, 246
Instructional Technology and M edia, 246
Mathematics Education, 252
Science Education, 257
263 Department of Organization and Leadership
Adult Learning and Leadership (ALL):
A dult Education Guided Intensive Study (AEGIS), 264
Adult Education and Organizational Learning, 264
H ealthcare H uman Resources, 264
Education Leadership:
Education Leadership (including Private School Leadership), 270
Inquiry in Education Leadership Practice, 270, 274
Educational Leadership \& M anagement (a joint degree program with the Columbia Business School), 270, 274

Higher Education:
Higher Education, 279
Higher Education Administration, 279
Student Personnel Administration (SPA), 279

N urse Executive, 284
Social-Organizational Psychology, 287
294 Additional Programs/Options

Beginning with the A utumn 1998 semester course designations for departments have changed to reflect the reorganization of the College into nine units. Formerly, all courses had a two place al phabetical sequence that began with " T ". Under the new arrangement the " $T$ " is replaced by:

| A\&H | for | Arts and Humanities |
| :--- | :--- | :--- |
| BBS | for | Biobehavioral Studies |
| CCP | for | Clinical and Counseling Psychology |
| C\&T | for | Curriculum and Teaching |
| HBS | for | Health and Behavior Studies |
| HUD | for | Human Development |
| ITS | for | International and Transcultural Studies |
| ORL | for | Organization and Leadership |
| MST | for | Mathematics, Science and Technology |
| IND | for | Interdepartmental Courses |

The second al phabetical character under the old number system remains the same in most instances as does the four digit number; examples are:

| TF4070History of Education in the <br> United States becomes | A\&HF 4070 |
| :--- | :--- | :--- |
| TR4095 Applied Physiology I becomes | BBSR 4095 |
| TJ6362 Group Practicum becomes | CCPJ 6362 |

Courses that cross disciplines within a department may use the three character departmental designation only, as do the interdepartmental and the curriculum and teaching courses.

The numeric portion of the course number will remain the same.
The first digit of the course number indicates the level as follows:
4 initial graduate
5 intermediate graduate
6 advanced graduate
7 dissertation seminar
8 di ssertation advisement
9 postdoctoral.
The second digit indi cates types of offering, as follows:
0 lecture
1 lecture
2 fieldwork
3 practicum
4 internship
5 seminar
6 colloquium
7 student teaching
8 workshop
9 independent study.
The third and fourth digits indicate internal program and course identifications.

Below is a list of N ew York State Education Department approved programs as of A pril 26, 2001.

| Program Title | HEGIS | Award |
| :---: | :---: | :---: |
| Computing and Education | 0799 | MA |
| Elementary/Childhood |  |  |
| Education-Preservice | 0802 | MA |
| Higher Education Administration (Joint M BA w/School of |  |  |
| Business) | 0805 | EDD, MA, |
| Higher Education | 0805 | EDD, MA, ME, PHD |
| Student Personnel Administration | 0805 | MA, ME |
| Adult Education Guided |  |  |
| Intensive Study | 0807 | EDD |
| Adult and Continuing Education | 0807 | EDD, MA |
| Adult Education Research | 0807 | PHD |
| Instructional Practice in Special |  |  |
| Education | 0808 | EDD, ME |
| Research in Special Education | 0808 | EDD |
| Cross-Categorical Studies | 0808 | EDD |
| Guidance and Rehabilitation | 0808 | MA |
| Supervision of Special Education |  |  |
| Programs | 0809 | ME |
| Administration of Special |  |  |
| Education Programs | 0809 | EDD |
| Mental Retardation | 0810 | $\begin{aligned} & \text { EDD, MA, } \\ & \text { PHD } \end{aligned}$ |
| Giftedness | 0811 | EDD, MA |
| H earing Impairment | 0812 | EDD, MA |
| Blindness and Visual Impairment | 0814 | EDD, MA |
| Behavioral Disorders | 0816 | $\begin{aligned} & \text { EDD, MA, } \\ & \text { PHD } \end{aligned}$ |
| Learning Disabilities | 0818 | EDD, MA |
| Physical Disabilities | 0819 | $\begin{aligned} & \text { EDD, MA, } \\ & \text { PHD } \end{aligned}$ |
| History and Education | 0821 | EDD, MA |
|  |  | ME, PHD |
| Philosophy and Education | 0821 | EDD, MA, ME, PHD |
| Psychology: Psychology in Education | 0822 | MA |
| Educational Psychology: |  |  |
| H uman Cognition and Learning | 0822 | EDD, MA, ME, PHD |
| School Psychology (Applied |  |  |
| Devel opmental \& Learning |  |  |
| Psychology) | 0822 | ME |
| School Psychology (Applied |  |  |
| Educational Psychology) | 0822 | EDD, PHD |
| Early Childhood Education | 0823 | $\begin{aligned} & \text { EDD, MA, } \\ & \text { ME } \end{aligned}$ |
| Early Childhood/Special Education | 0823 | MA, ME |
| A pplied Statistics | 0824 | MS |


| Resource M anagement |  |  |
| :---: | :---: | :---: |
| (Joint EDD/M BA with |  |  |
| School of Business) | 0827 | EDD |
| Educational Administration | 0827 | EDD, MA, ME, PHD |
| Inquiry in Educational |  |  |
| Administration Practice | 0827 | EDD |
| Curriculum and Teaching | 0829 | $\begin{aligned} & \text { ME, EDD, } \\ & \text { MA } \end{aligned}$ |
| Reading and Learning Disabilities | 0830 | ME |
| Art and Art Education | 0831 | $\begin{aligned} & \text { EDD, } \\ & \text { EDDCT, MA, } \\ & \text { ME } \end{aligned}$ |
| M usic and M usic Education | 0832 | $\begin{aligned} & \text { EDD, } \\ & \text { EDDCT, MA, } \\ & \text { ME } \end{aligned}$ |
| M athematics Education | 0833 | EDD, <br> EDDCT, MA, <br> ME, MS <br> PHD |
| Science Education | 0834 | PHD |
| Elementary School Science |  |  |
| Education | 0834 | EDD, MA, ME, MS |
| Secondary School Science |  |  |
| Education | 0834 | ME, MS, EDD, MA |
| College Teaching of |  |  |
| College Teaching of Earth |  |  |
| Science | 0834 | EDDCT |
| College Teaching of Biological |  |  |
| Science | 0834 | EDDCT |
| Education of Teachers in Science | 0834 | EDD, ME |
| Supervision in Science Education | 0834 | EDD, MA, ME, MS |
| Applied Physiology | 0835 | $\begin{aligned} & \text { EDD, MA, } \\ & M E \end{aligned}$ |
| M otor Learning | 0835 | $\begin{aligned} & \text { EDD, MA, } \\ & M E \end{aligned}$ |
| Physical Education | 0835 | $\begin{aligned} & \text { ME, MA, } \\ & \text { EDD } \end{aligned}$ |
| Family and Community Education | 0837 | EDD |
| A pplied Physiology \& N utrition | 0837 | MS |
| H ealth Education | 0837 | $\begin{aligned} & \text { EDD, MA, } \\ & \text { MS } \end{aligned}$ |
| International Educational |  |  |
| Development | 0899 | $\begin{aligned} & \text { EDD, MA, } \\ & \text { ME } \end{aligned}$ |
| Dance and Dance Education | 1008 | MA |
| Art Administration | 1099 | MA |
| Teaching of Spanish | 1105 | EDD, <br> EDDCT, <br> MA, ME, PHD |

## HEGIS Codes

| Teaching of ASL as a Foreign Language | 1199 | MA | Applied Anthropology <br> (In Cooperation with GSAS) | 2202 | PHD |
| :---: | :---: | :---: | :---: | :---: | :---: |
| N ursing Organization |  |  | Anthropology and Education | 2202 | EDD, MA, |
| Executive Role | 1203 | EDD, MA, |  |  | ME, PHD |
|  |  |  | Politics and Education | 2207 | EDD, MA, ME |
| Professorial Role | 1203 | $\begin{aligned} & \text { EDD, MA, } \\ & \text { ME } \end{aligned}$ | Sociology and Education | 2208 | EDD, MA, ME, PHD |
| N urse Educator/N urse Executive | 1203 | EDD | Interdisciplinary Studies in |  |  |
| N urse Executive: N ursing |  |  | Education | 4999 | EDD, MA, |
| Organization Executive R ole | 1203 | EDD |  |  |  |
| N urse Executive (A ccelerated Program) | 1203 | MA | Comparative and International Education | 5000 | EDD, MA, |
| Speech and Language Pathology and Audiology | 1220 |  | Instructional |  | ME, PHD |
|  |  | MS, PH D | and M edia | 5030 | EDD, MA, |
| Speech and Language Pathology | 1220 | $\begin{aligned} & \text { EDD, ME, } \\ & \text { MS } \end{aligned}$ | Bilingual/Bicultural Education | 5040 |  |
| Nutrition Education | 1306 | EDD, MS |  |  |  |
| N utrition and Public H ealth | 1306 | $\begin{aligned} & \text { EDD, MS, } \\ & \text { MA } \end{aligned}$ | Program in Law \& Educational Institutions | 5045 | ME |
| Community N utrition Education | 1306 | ME | Postdoc. Respecialization in |  |  |
| English Education | 1501 | PHD | Clinical Psych. | 5047 | ND |
| Teaching of English | 1501 | $\begin{aligned} & \text { EDD, EDDCT, } \\ & \text { MA, ME } \end{aligned}$ | Clinical $N$ europsychology (Statement of Attendance) | 5049 | ND |
| Applied Linguistics | 1505 | EDD, MA, ME | N euroscience and Education | 5049 | ME |
| Communication | 1506 | $\begin{aligned} & \text { EDD, MA, } \\ & \text { ME } \end{aligned}$ |  |  |  |
| Teaching of English to Speakers of Other Languages (Japan) | 1508 | MA |  |  |  |
| Teaching of English to Speakers of Other Languages | 1508 | $\begin{aligned} & \text { EDD, EDDCT, } \\ & \text { MA, ME } \end{aligned}$ |  |  |  |
| Religion and Education (with J.T.S. and U.T.S.) | 1510 | MA |  |  |  |
| Religion and Education | 1510 | EDD |  |  |  |
| Religion and Education (with J.T.S. and U.T.S.) | 1510 | EDD |  |  |  |
| Religion and Education | 1510 | $\begin{aligned} & \text { EDD, MA, } \\ & \text { ME } \end{aligned}$ |  |  |  |
| Clinical Psychology | 2003 | $\begin{aligned} & \text { EDD, PHD, } \\ & \text { MS } \end{aligned}$ |  |  |  |
| Counseling Psychology | 2004 | $\begin{aligned} & \text { EDD, PHD, } \\ & \text { MA, ME } \end{aligned}$ |  |  |  |
| Economics and Education | 2204 | EDD, MA, ME, PHD |  |  |  |
| Social-Organizational Psychology (M.A. En Passant) | 2005 | EDD, PHD |  |  |  |
| M easurement and Evaluation (M.A. En Passant in Psychology and Education) | 2007 | $\begin{aligned} & \text { EDD, PHD, } \\ & \text { ME } \end{aligned}$ |  |  |  |
| M easurement Evaluation | 2007 | $\begin{aligned} & \text { EDD, MA, } \\ & \text { PHD, ME } \end{aligned}$ |  |  |  |
| Psychology: Organizational | 2008 | MA |  |  |  |
| Psychology: Developmental | 2009 | MA |  |  |  |
| Developmental Psychology | 2009 | EDD, PHD |  |  |  |
| Teaching of Social Studies | 2201 | EDD, MA, ME, PHD |  |  |  |



Three lists follow: programs which start only in specific semesters, programs which do not accept applications after the priority deadline, and programs which review applications after the final deadlines on a space avail able basis.

## Programs starting only in specific semesters

Adult and Continuing Education (TDA): Fall only
Adult Education Guided Intensive Study (AEGIS) (TDS): Summer odd years only

Applied Linguistics (TLA) M.A., Ed.M ., Ed.D.: Fall and Spring only

Arts Administration (TGC): Fall only
Clinical $N$ europsychology (TSK ): Fall only
Clinical Psychology (TXC): Fall only
Clinical Psychology Post-doctoral Respecialization (TZH): Fall only
Cognitive Studies in Education (TK) Ed.D. \& Ph.D.: Fall;
Spring only in extraordinary circumstances
Counseling Psychology (TJV) Ph.D. \& Ed.D.: Fall only
Curriculum and Teaching (TYZ) Ed.D.: Fall only
Developmental Psychology (TK D) Ph.D.: Fall only
Early Childhood (TYZ) Ed.D.: Fall only
Early Childhood Special Education (TYZ) Ed.D.: Fall only
Education Leadership (TA) Ed.D. \& Ph.D.: Fall only
Education Leadership \& M anagement (TAA): Ed.D./M.B.A.: Fall only
Gifted Education (TYZ): Ed.D.: Fall only
Higher Education (TDJ): Fall only

History and Education (TFH): Ph.D. and Ed.D: Fall only Inquiry in Educational Administrative Practice (TAI): Summer only Learning Disabilities (TYZ): Ed.D.: Fall only
M otor Learning (TRM) Ed.M. \& Ed.D.: Fall \& Spring only
N eurosciences and Education (TKN \& TZL): Fall only*
N urse Executives (TN R \& TN Z) M.A. \& Ed.D.: Fall only
Politics and Education (TFG): Ed.D. \& Ph.D.: Fall only
Religion and Education (TFU): Ed.D: Fall only
School Psychology (TKL \& TKT): Fall only
Social Studies (TLW ) M .A.: Fall or Summer only
Social Studies (TLW ) Ph.D.: Fall or Spring only
Social-Organizational Psychology (TJP, TJG) Ph.D. \& Ed.D.: Fall only
Sociology and Education (TFS) Ed.D. \& Ph.D.: Fall only
Speech and Language Pathology and Audiology (TQC) M.S.:
Fall only
Student Personnel Administration (TDH): Fall only

Programs not accepting applications after the Priority Deadline
Adult and Continuing Education (TDA) Ed.D. only.
Applied Linguistics (TLA) M.A., Ed.M ., Ed.D.
Clinical Psychology (TXC) Ph.D.
Counseling Psychology (TJV) Ph.D. \& Ed.D.
Curriculum and Teaching (TYZ) Ed.D.
Developmental Psychology (TK D) Ph.D.
Early Childhood (TYZ) Ed.D.

Early Childhood Special Education (TYZ) Ed.D.
Educational Administration (TA) Ed.D. \& Ph.D.
Education Leadership \& M anagement (TAA) Ed.D./M.B.A.
Gifted Education (TYZ) Ed.D.
History and Education (TFH) Ph.D. \& Ed.D.
Learning Disabilities (TYZ) Ed.D.
Politics and Education (TFG) Ph.D. \& Ed.D.
Religion \& Education (TFU) Ed.D.*
School Psychology (TKL \& TK T) Ed.M., Ph.D. \& Ed.D.
Social-Organizational Psychology (TJP, TJG) Ph.D. \& Ed.D.
Sociology and Education (TFS) Ph.D. \& Ed.D.
Speech and Language Pathology and Audiology (TQC) M.S.

## Programs which review applications after the final deadlines on a space available basis

Adult and Continuing Education (TDA) M.A.
Anthropology \& Education (TFA)
Applied Anthropology (TFO)
Applied Physiology \& N utrition (TZR)
Applied Physiology (TRA)
Art and Art Education (TGA)
Bilingual/Bicultural Education (TLB): Fall only
Clinical Psychology Post-doctoral Respecial ization (TZH)
Cognitive Studies in Education (TKE) M.A. \& Ed.M.
Communication \& Education (TUC) M.A. \& Ed.M.
Computing \& Education (TUD) M.A.
Dance Education (TGD)**
Developmental Psychology (TKA) M.A.
*Currently, this program is accepting applications to the M aster of Arts degree only.
**Currently, this program is not accepting applications for admission. For updated information, please call the Office of Admission at 212-678-3710.

Economics \& Education (TFE)
H eal th Education (TSD)
Higher Education (TDJ)
History and Education (TFH) M.A.
Instructional Technology \& M edia (TUT) M.A. \& Ed.M.
Learning Disabilities (TEN ) M.A.
M athematics Education (TCA)
M easurement, Evaluation, and Statistics (TMM \& TMX)
M otor Learning (TRM)
Music and Music Education (TGM) Ed.D \& Ed.D.C.T.
N utrition and Education (TSA, TSB, TSC)
Philosophy and Education (TFP)
Physical Education (TRC, TRP)
Politics and Education (T FG) M.A. \& Ed.M.
Psychology and Education (TXA or TXG) M.A.
Reading and Learning Disabilities (TZB)
Reading Specialist (TKU)
Religion \& Education (TFU) M.A.
Science Education (TCB-X)
Sociology and Education (TFS) M .A. \& Ed.M.
Special Education Programs in Department of Health and Behavior Studies

Student Personnel Administration (TDH)
Teaching of A merican Sign Language as a Foreign Language (TEL)
Teaching of English (TLE)
Teaching of English to Speakers of Other Languages (TESOL) (TLZ) M.A., Ed.M., Ed.D.

Teaching of Spanish (TLS)**

Chair: Professor Ruth Vinz
Location: 334 L H orace M ann
Tel ephone N umber:
(212) 678-8113

Fax: (212) 678-3746

## Programs:

Arts:
Art and Art Education
Arts Administration
D ance Education
Music and Music Education

## Humanities:

Applied Linguistics
History and Education
Philosophy and Education
Religion and Education
Social Studies
Teaching of English and English Education
Teaching of English to Speakers of Other Languages (TESOL)
Teaching of Spanish

## Faculty:

## Professors:

$H$ arold F. A beles (M usic)
Leslie M. Beebe (A pplied Linguistics/TESOL)
Mary C. Boys (Union Theological Seminary)
Judith M. Burton (Art)
M axine Greene (Philosophy and A esthetics)- Emeritus
V.P. Franklin (H istory)

D avid Torrey H ansen (Philosophy)
Janet L. Miller (English)
Ruth Vinz (English)

## Adjunct Professors:

Dino Anagnost (Voice, Conducting)
Angiola Churchill (Painting)
R obert Greenblatt (Arts Administration)
J oan J effri (Arts Administration)
Bert K onowitz (J azz)

## Associate Professors:

John M. Broughton (Philosophy/Cultural Studies)
M argaret Smith Crocco (Social Studies)

Barbara Ann H awkins (TESOL)
Lenore M. Pogonowski (Music)
James E. Purpura (Applied Linguistics/TESOL)
Graeme Sullivan (Art)
Stephen J. Thornton (Social Studies)

## Adjunct Associate Professors:

Gay Brookes (TESOL)
Lan-K u Chen (Music)
Alice H. Deakins (A pplied Linguistics)
Eugenia Earle (H arpsi chord)
Alvin Fossner (Oboe, Saxophone)
Franklin E. H orowitz (Applied Linguistics)
Solomon Mikowsky (Piano)
J oy M oser (Painting)
Gerardo Piña R osales (Spanish)
J ennybelle R ardin (TESOL)
H adassah Sahr (Piano)

## Assistant Professors:

James Albright (English)
Lori Custodero (Music)
Leo Paul Cyr (Art)
Gregory W. H amilton (English)
ZhaoH ong H an (A pplied Linguistics/TESOL)
Christopher Higgins (Philosophy)
James E. Purpura (Applied Linguistics/TESOL)
Cally W aite (H istory)

## Assistant Professors of Practice:

Ruth Bereson (A rts
Administration)
F. Timothy W alsh (TESOL)

## Adjunct Assistant Professors:

Philip A arons (A rts Administration)
Joe A morino (Art Education)
Jennifer Burns (Philosophy)
Jennifer B. K. Eddy (Spanish)
Leonard Fleischer (Arts
Administration)
Susan Glaser (M usic, Flute)
J eanne C. G offi (Voice)
M ari H aas (TESOL)
Thomas H oyt (M usic)
Chin K im (M usic)
I. Fred K oenigsberg (Arts Administration)

Leonard Leibowitz (A rts Administration)
Roberta M artin (Social Studies)
Angelo Miranda (Percussion)
Alison N owak (M usic Theory, Composition)
Estrella Pujadas (Spanish)
$N$ athal ie R obinson (M usic)
Lisa J o Sagalla (D ance)
Prabha Sahasrabudhe (Art)
J ohn Schuder (Organ)
Barbara Tischler (A rts Administration/Social Studies)
H aruko Yoshizawa (Synthesizer, Jazz Piano)

## Lecturers:

Terry R oyce (TESOL, Tokyo)
Marilyn Shaw (English)
H oward A. Williams (Applied Linguistics)

## Instructors:

Randall E. Allsup (Saxophone)
M ary Alvord (English)
Ronald A nderson (Trumpet)
M ary Barto (Flute)
Barbara Bashaw (D ance)
Stanley Bednar (Violin)
M artha Bixler (Recorder)
Elizabeth Brandjes (English)
John Brown (English)
Rika Burnham (M useum Studies)
Don Butterfield (Tuba)
Christine Casanave (TESOL, Tokyo)
Alexander K. Cates (TESOL, Tokyo)
Carolyn Clark (Arts Administration)
Julian Cohen (Social Studies)
Renee Darvin (Art Education, Museum Studies)
Judith Davidoff (Renai ssance Instruments)
Alan de M ause (Guitar)
Evelina Dimitrova (TESOL)
M argaret D wyer (TESOL)
M atthew D wyer (TESOL)
Laurance Fader (Viola)
Bayard Faithful (Social Studies)
Ethan Feinsod (Photography)
J ames Frankel (M usic Technology)
Shakti Gattegno (TESOL)
Erick Gordon (English)
Carolyn Graham (TESOL)
Gena Greher (M usic)

M ark H el geson (TESOL, Tokyo)
Elizabeth H enly (TESOL)
Sheldon H enry (French H orn)
A. C. Hickox (Dance)

BrookeJackson (English)
David Iasevoli (English)
Susan J olles (H arp)
Tatsuya K omatsu (TESOL, Tokyo)
Ada K opetz-K orf (Piano)
J effrey K raus (Percussion)
Juliette LaM ontagne (English)
Lori Don Levan (Photography)
M arijeanne Liederbach (D ance)
Thomas Lollar (Ceramics)
Linda Louis (Art Education)
Michael M arino (Social Studies)
Stephen M axym (Bassoon)
Bede M cCormack (TESOL)
Linda McK night (String Bass)
Oneida M orrober-Tester
(Spanish)
M asumi M uramatsu (TESOL, Tokyo)
M ichael Pellettieri
(Printmaking)
Diane Pinkley (TESOL)
Claire Porter (D ance)
James Preiss (Percussion)
R aymond S. Pultinas (English)
Alan Raph (Trombone,
Baritone)
M ary Regan (TESOL)
M ary A nne R ose (Drawing)
René Schillinger (English)
Deborah Schwartz (M useum Studies)
Stephen Shapiro (English)
Susan Stempleski (TESOL)
Alan Stepansky (Cello)
Ruthie Stern (English)
M ykola Suk (Piano)
Peter Swords (Arts
Administration)
Gerard Vezzuso (Photography)
M artin Vinik (Arts
Administration)
Lisa Vujovich Rigisich
(English)
Eric W eeks (Photography)
Judith W eller (Sculpture)
J ena W ellman-Smith (Voice)
Martha Williams (Cello)
Candy W ilmot (English)
For information about faculty and their scholarly and research
interests, please refer to the
"Faculty" section of the Catal og.

## Departmental Mission:

The Department of Arts and H umanities is dedicated to the study of a variety of academic and professional disciplines in an educational context. The Department's mission is twofold: To promote proficiency in specific fields; and to explore the purposes, practices and processes of education both within- and across- disciplines. Individual fields of study include: philosophy, history, culture, criticism, religion, social studies, language studies as well as linguistics and the arts.

Within the Department, individual programs preserve their own disciplinary rigor, while expanding modes of inquiry, discovery and creation across disciplines and diverse societies and cultures. The Department is committed to understanding culture as a broad and varied process, a fundamental human activity involving various modes of thinking and expression through which meaning is constructed and historically transmitted.

The Department views the study of education as broad and vital. Here, intellectual and creative ideas and practices extend beyond the traditional concerns of schooling. Thus, each program shares a concern with the learner's construction of knowledge, the art and methods of teaching, the realities of the contemporary classroom, the relationship of schools to their communities, and the underlying phil osophies of school reform.

In each of the seven programs that prepare teachers for positions in schools and universities, there is a commitment to the education of reflective practitioners, the integration of theory and improvement of
learning, as well as research and practice in the students' chosen fields of study.

Faculty share the view that informed, imaginative and critical thinking enables scholars and educators to actively shape cultural concepts of learning through education. With this in mind, the programs- both separately and together-offer students the skills and knowledge needed to thrive and assume leadership in today's changing cultural and educational environment.

## Arts:

Art and A rt Education
A rts A dministration
D ance and $D$ ance Education
M usic and $M$ usic Education

## Art and Art Education

 (Code: TGA)Program Coordinator: Professor Judith M. Burton

## D egrees offered:

M aster of Arts (M.A.)
M aster of Education (Ed.M.) D octor of Education (Ed.D.) D octor of Education in College Teaching of Art (Ed.D.C.T.)

## Special Application Requirements/I nformation:

All applicants are required to submit a portfolio (slides or original works), examples of scholarly writing (papers, the sis, publications), and the Art and Art Education A pplication Supplement directly to the Program. Please call 212-6783360 to request the Application Supplement. A pplicants must have completed an undergraduate degree in studio art, art education, art history or criticism, art or museum education, or present other evidence of competence.

For the M.A. degrees a personal interview with a faculty advisor is strongly advised. For the

Ed.D. and the Ed.D.C.T.A. degrees an interview with the Program Coordinator is required.

All applicants for whom English is not their first language are required to submit either a 600 (250 computer-based) TOEFL score or a score of 10 on the Columbia University English Language proficiency test as well as scores for the Test of W ritten English (TW E). An in-person writing sample may also be requested.

The 32 point M.A. degree is specially designed for individuals seeking in-service opportunities, or who wish to complete a special curriculum project, or who need the master's degree to complete state certification. The degree is flexibly structured to accommodate various academic and professional needs.

The 38 point M.A. degree with teacher certification is a Stateapproved program for those wishing to teach art K-12 in public schools. A student in this program who wants to qualify for $N$ ew York State teaching certification must complete the program and file for certification prior to February 1, 2004. Teachers College is developing new programs to meet regulations that go into effect after February 1, 2004. These programs will be outlined in next year's catalog.

The 60 point Ed.M. degree is designed for individuals seeking the highest level of professional achievement within the arts in education. The degree is also designed for students contemplating future doctoral study. A pplicants are required to have a minimum three years of experience as an educator or practicing professional in the arts; 30 points of prior graduate study may be transferred providing they meet the requirements for the degree.

Applicants for the Administra-tive-Supervisory Certification option are expected to have at least five years of teaching or other professional experience in art education.

The 90 point Ed.D. and Ed.D.C.T.A. degrees are designed for individuals interested in serious research and who wish to contribute new scholarship and practice to the field. A pplicants are required to have five years of professional experience in arts/ museum/studio education. For both degrees, applicants are accepted to the program following faculty review of their artistic, professional and scholarly mate rials. In some instances, applicants may be requested to complete prerequisites as a condition of entry to the program. Similarly, applicants may be requested to complete the Ed.M. degree prior to acceptance to the Ed.D.

The 90 point Ed.D. in Art Education is designed for those wishing to teach art education at the college/university level, become arts supervisors in school systems, education curators in museums, administrators in arts agencies or enter other arts education leadership positions. A pplicants for this degree are expected to exhibit strong writing skills.

The 90 point Ed.D.C.T.A. is designed for those wishing to teach studio art, history, or criticism in higher education: art school, college or university. A pplicants for this degree program will be expected to have an established, critically reviewed, exhibition record either national or international.

## Program Description:

In the Art and Art Education Program, the study of art encompasses the traditions of fine art and the popular arts of mass culture. A central tenet of
the program is the role of the arts in nurturing human growth and development throughout the life span. Within this context, courses in art education examine the different environments in which the various art forms reach their audiences: private and public schools, colleges, museums, arts centers, hospitals and other settings.

Faculty prepare students to be well-informed, critical thinkers so that students may enter leadership positions in their professions. Faculty are not only seasoned practitioners who possess expertise in art, studio, museum and diversity education, they also are national leaders in arts education research.

Each of the Department's five programs is built around a core of courses considered to be essential to an exemplary arts education. Beyond the core, students al ong with their advisors have the flexibility to design individual programs that meet particular needs and goals. In addition to courses in art education, students are expected to select from other offerings of Teachers College and Columbia U niversity in order to fulfill degree require ments. The 38-point M .A . offers N ew York Stateapproved teacher certification. Students in other M.A. degree programs may opt for the stateapproved Art AdministrationSupervisory Certification, or the M useum Education concentration (see below.)

The vast cultural resources of N ew York City, along with a host of other programs, offer students myriad opportunities to enrich their conceptions of art and its diverse practices. There are weekend institutes, colloquia, mini-courses, opportunities for involvement in professional development workshops and summer study.

Suitably qualified students may al so apply for apprenticeships in the Center for Arts Education Research where they may assist on funded projectsstudying artistic devel opment, or assessing the relationships between schools and cultural organizations.

## D egree Requirements:

## Master of Arts in Art Education (32 points)

Required courses in A rt Education (14 points minimum):

- A\&H G 4080, Artistic development: children
- A\&H G 4088, Artistic development: adol escence to adulthood
- A\&H G 4081, Curriculum design in art education
- A\&H G 4085, H istorical foundations in art education
- Studio: Two sessions
- A\&H G 5922, M asters Seminar

Required courses outside the program (6-9 points) Chosen with advisor approval.

Elective courses from: A rt education, studio, other programs of the College(9-12 points) Chosen with advisor approval.

In addition: Students in this M.A. program are required to complete an integrated written project on a theme or research topic arising from their interests; students may offer a M acy Gallery exhibition in partial fulfillment of their degree requirements. All students are urged to attend the Program and Department-wide workshops offered throughout the academic year; topics vary.

## The Master of Arts in Art Education w ith Teachers Certification (38 points)

Required courses in A rt Education (26 points minimum):

- A\&H G 4080, Artistic development: children
- A\&H G 4088, Artistic development: adolescence to adulthood
- A\&H G 4281, Field observation in art education (two sessions)
- A\&H G 4081, Curriculum design in art education
- A\&H G 4085, Historical foundations in art education
- A\&H G 4087, Processes and structures in the visual arts
- A\&H G 5181, The arts in education
- Studio (two sessions)
- A\&H G 4079, America's cultures: implications for art education
- A\&H G 4722, Supervised student teaching and seminar: elementary
- A\&H G 4702, Supervised student teaching and seminar: secondary
- Plus: two weekend workshops, topics vary each year
- C\&TY 4504, Child substance abuse detection

Required courses outside the program ( $6-9$ points) Chosen with advisor approval.

E lective courses from: A rt education, studio, other programs of the College (3-6 points) Chosen with advisor approval.

In addition: Students in this program are required to complete an integrated written project on a theme or research topic arising from their interests and mount a Macy Gallery exhibition combining their own art work with that of the pupils taught during their practicums. Students are al so expected to attend the Depart-ment-wide series of workshops offered throughout the academic year; topics vary.

## M aster of Educ ation (60 points)

Required courses in A rt Education (27 points minimum):

- A\&H G 4080, Artistic development: children, and/or
- A\&H G 4088, Artistic development: adolescence to adulthood
- A\&H G 4081, Curriculum design in art education
- A\&H G 5001, Research methods in arts education
- A\&H G 4087, Processes and structures in the visual arts
- A\&H G 5181, The arts in education
- Studio (two sessions)
- A\&H G 5581, Studio seminar
- A\&H G 4079, America's cultures: implications for art education
- A\&H G 5922, Master's seminar

Required courses outside the program (6-9 points) Chosen with advisor approval.

El ective courses from: A rt Education, studio, and other programs of the College (variable points) Chosen with advisor approval.

In addition: see expectations for the M.A. above.

The Ed.M. degree offers two additional options:
Art Administrative-Supervisory Certification. Consistent with N ew York State regula tions, the Certification option requires 18 points of course work in museum studies, aesthetics, artistic development, research, arts administration and a supervised internship.

## Doctor of Education (90 points)

R equired courses within the specialization (16 points):

- A\&H G 5001, Research in arts education
- A\&H G 5581, Studio seminar
- A\&H 5500, Pro-seminar
- A\&H G 6502, Doctoral seminar
- A\&H G 7502, Dissertation seminar (two sessions)
- A\&H G 8900.02, Dissertation advisement

Suggested courses (15 points minimum):

- A\&H G 4070, Artistic development: children
- A\&H G 4088, Artistic development: adolescent to adult
- A\&H G 5081, Advanced curriculum design
- A\&H G 4085, Historical foundations
- A\&H G 4082, Arts in contemporary life
- A\&H G 4087, Processes and structures
- A\&H G 6021, Arts administration and supervision
- A\&H G 6520, Clinical internship

Required courses outside the Program (15 points minimum): Chosen with advisor approval

Elective courses from: A rt education, independent studio, studio, other programs of the College (points vary). Chosen with advisor approval.

In addition: Students must complete between 50-60 points in the program, including those transferred, before entering the first of the Dissertation seminars. The first seminar prepares students to write the certification papers. To complete certification, students are expected to offer a professional presentation such as: a public reading from a published work of their own, a M acy Gallery art exhibition, a curated exhibition in a public or private gallery, an account of a research or curriculum development project. Each level of certification is accomplished through faculty review; students must complete each level satisfactorily before they are given permission to write the dissertation. C andidates should bein touch with the Office of $D$ octoral Studies to be certain of complying with the latest procedures, deadl ines and documents.

## Doctor of Education in the College Teaching of Art (90 points)

Required courses within the specialization (16 points):

- A\&H G 6002, Teaching art at the college level
- A\&H G 5081, Curriculum in higher education
- A\&H G 6482, Internship or special project
- A\&H G 5581, Studio seminar
- A\&H 5500, Pro-seminar
- A\&H G 6502, Doctoral seminar
- A\&H G 7502, Dissertation seminar (two sessions)
- A\&H G 8900.02, Disserta tion advisement

Suggested courses (10 points minimum):

- A\&H G 4088, Artistic development: adolescent to adult
- HUDK 5021, A esthetic development
- A\&H G 5082, Philosophies of art in education
- A\&H G 4082, Arts in contemporary life
- A\&H G 5001, Research in arts education
- A\&H G 6002, Administra tion and supervision at the college level

Required courses outside the P rogram (15 points minimum): Chosen with advisor approval.

Suggested studio el ectives (15 points minimum) Chosen with advisor approval.

In addition: see Ed.D. above. Requirements for the dissertation for the Ed.D.C.T.A may be met by combining studio work and a written document. Candidates should be in touch with the Office of Doctoral Studies to be certain of complying with the latest procedures, deadlines and documents.

Courses: (* = course open to non-majors)

## Art Theory and Research

*A\&H G 5082. Philosophies of art in education (2-3)
Faculty. Examination of theories of the arts, including functions and aesthetic val ues which underlie arts education practice and criticism. D evelopment of student's own views and references for practice. Special fee: $\$ 15$.

## A\&H G 5181. The arts in educa-

 tion (2-3)Faculty. An examination of ideas about the interdisciplinary role of the arts in traditional and nontraditional educational and administrative settings through analysis of programs, projects, policy issues, and political processes that involve the visual arts, dance, music, and theater. Special fee: $\$ 30$.

## A\&HG 5581. Art and contem-

 porary culture (2)Dr. M oser and Guest Critics. Permission required. Required seminar for Ed.M. and Ed.D. An examination of the role of artculture in contemporary life, employing experiences from art worksmuseums, galleries and alternative spaces-readings and discussion. Special fee: $\$ 25$.

## A\&HG 6003. Critical perspec- <br> tives and practices in the arts (2)

Professor Sullivan. Students investigate their creative practice from several critical perspectives and produce personal profiles and arts projects within educational and cultural contexts.

A\&H G 6502. Doctoral seminar: Arts in education (2)
Faculty. For doctoral candidates to identify their area of research
interest and to narrow their topic.
A\&H G 6580. Problems in art and education (2-4)
Faculty. Specific problems of art and art education examined. Different topics each semester. Per-
mission required. Special fee $\$ 15$.
A\&H G 7502. Dissertation seminar in the arts in education (2)
Professor Burton and faculty. Two required group tutorials for doctoral students to help develop or
refine topics of inquiry for research. The teaching format is flexible and may include faculty/ student presentations, group discussions and critiques. May be repeated. Section 2 is required of all doctoral students in the department in the semester following successful completion of written certification examination and involves preparation and presentations/dissertation proposal for approval. Sections: (1) Certification preparation (2) Dissertation proposal preparation.

## A\&H G 8900.02. Dissertation

 advisement in art education (0) Individual advisement on doctoral dissertations. Fee: to equal 3 points at current tuition rate for each term. For requirements, see section in catalog on Continuous Registration for Ed.D. degree.
## Art Education

*A\&H G 4078. Art for classroom teachers: Teaching art to children (2)
Professor Cyr. Introduction to theories of artistic devel opment, uses of art materials and processes, and lesson planning strategies for art experiences with children and young adolescents. Designed for classroom teachers and in-service students. Special fee $\$ 60$.

## *A\&H G 4079. Exploring A mer-

 ica's cultures: Implications for arts education (N oncredit or 2-3) Professor Sahasrabudhe. The course will explore the arts and aesthetics of various A merican sub-cultures, including cultures-of-origin, and will involve art teachers, art educators and other participants in a process of defining and articulating understandings of America's emerging cultures. Class lectures will focus on critical issues, problematic domains in specific cultures, and will devel op understandings, sensitivities and skills required for cross-cultural and intercultural dial ogues and interactions. Also discussed will be models for program design, the identification of content (artists, artworks, aesthetic theories, philosophies, art-events, myths, folklore, rituals) and cultural conventions which must be considered when planning for multicultural art education. Special fee: $\$ 25$.*A\&H G 4080. Artistic development of children (2-3)
Professor Burton. Required of all candidates seeking N ew York State art teacher certification ( $\mathrm{K}-12$ ). Recommended for all degree candidates in elementary education. An examination of the role of the senses, emotions, and intellect in artistic development and of the layered integrations they form over time. Discussion of ways in which devel opmental insights are basic to the design and implementation of exemplary visual arts lessons and offer critical starting points for research. Special fee: \$20.

A\&H G 4081. Curriculum design in art education (2-3)
Professor Sullivan. Introduction to curriculum theory and design in the larger context of education and schooling. The course al so explores al ternative conceptual models as reflected in different art curricula, and engages students in review of curricul ar issues rel ated to learning outcomes, standards and assessment in art education. Lab fee: $\$ 30$.

## A\&H G 4085. Historical founda-

 tions of art education (2-3) Professor Sullivan. An introduction to major historical events and underlying beliefs, values, and practices that have influenced contemporary art and art education programs at all levels of instruction in the U.S. as well as internationally. Special fee: $\$ 30$.
## A\&H G 4086. Current issues and practices in art and art educa-

 tion (2-3)Faculty. An analysis of current philosophies, theories, and practices in art and art education at all levels of instruction. Programs in public schools, higher education, museum education, and other nontraditional settings are examined, along with advocacy initiatives and policy issues appropriate to the various issues discussed. Special fee: \$30.

## A\&H G 4087. Processes and

 structures in the visual arts (2-3)Dr. Amorino. Opportunity for indepth and sustained exploration of the properties, structures and expressive uses of selected art mate rials. The course aims to enrich and extend personal visual repertoires
and, in parallel, provoke insights about the role of materials in supporting, integrating and challenging the artistic growth of young people in school. Prerequisite: A\&H G 4080, A\&H G 4088, or permission of instructor. Required of all students in all degree programs. Special fee: \$30.
*A\&H G 4088. Artistic development: adolescence to adulthood (2-3)
Professor Burton. An examination of sensory, biological, affective, cognitive and cultural issues influencing continuing development in the visual arts. Discussion of ways in which developmental insights are basic to designing challenging lessons which enrich growth and learning as well as offering critical starting points for research.
Required of all candidates seeking State Art Certification K-12. Spe cial fe:: \$10
*A\&H G 4090. Museum issues I: art museums and their culture (3)

Ms. Burnham. An examination of the challenges facing art museums in the twentieth century, with a focus on changing interpretations of objects and how museums respond to public need. Special fee: \$25.

A\&H G 4281. Field observations in art education (1)
Required of M.A. students or art teacher certification majors. To be taken concurrently with A\&H G 4080, Artistic development of children, and A\&H G 4088, Artistic development: A dolescence to adulthood. Involves observations in schools of various types; videotaping of contrasting teaching styles and curricular approaches; analysis of perceptual, artistic, and societal assumptions implicit within programs observed.

A\&H G 4702. Supervised teaching in art education: secondary (3)

Ms. Darvin. For majors only. A variety of supervised teaching experiences (7-12), supplemented by conferences, eval uation, and seminars. The student completes 200 hours in schools observing, assisting, teaching, and eval uating. Required of those seeking state certification in Art in New York
state and other states. Prerequisites: A\&H G 4080, A\&H G 4081, A\&HG 4087 and A\&HG 4088. M.A. candidates should plan to take student teaching in their last semester of course work towards their degree.

## A\&H G 4722. Supervised student teaching in art education: elementary (3)

Ms. Darvin. For majors only. A variety of supervised teaching experiences ( $\mathrm{K}-6$ ) supplemented by conferences, evaluation and seminars. The student completes 200 hours in an elementary school observing, assisting, teaching and evaluating. Required of those seeking state certification in New York State and other states. Prerequisites: A\&H G 4080, A\&H G 4081, A\&HG 4087, and A\&HG 4088. M.A. candidates should plan to take student teaching in their last semesters as final course work towards their degrees.

## *A\&H G 5064. Experiments in

 content (1-3)Faculty. An examination of new technologies, materials, concepts, attitudes, both in their current forms as well as future application. Participants will investigate a personal topic through field experience, hands-on demonstration, observation, readings and lectures. The topic focuses for the course will be drawn from art and design/studio/research/psychology/teaching. Special fee: TBA.

A\&H G 5081. Curriculum design in art education: A dvanced (3) Professor Sullivan. An analysis of curricular models at all levels of instruction. Emphasis on evaluation techniques, subject matter, and implementation processes. Prerequisite: A\&H G 4081 or consent of instructor. Special fee: $\$ 20$.

A\&H G 5085. Varieties of visual experience: museums and education (2)
M s. Darvin. Partici pants will visit N ew York City museums and use the multiple resources of the museums to develop personalized curriculum materials. Enrollment limited. Special fee: \$30
*A\&H G 5090. Museum I ssues II: missions and standards (3) Ms. Schwartz. An examination of the changing purposes of muse ums, both A merican and international, as they confront new technologies and expectations for greater participation in education. Issues of ethics and standards for museum education will also be discussed. In the context of the section reform movement. Special fee: \$25

## *A\&H G 5804. Museums as resource: workshops at the Metropolitan Museum (1-4)

Professor Burton or Ms. Darvin. Independent study at Teachers College combined with workshops, lectures and seminars at the M etropolitan M useum of Art. Students work collaboratively with both M useum and College faculty to develop and carry out individual projects, which may lead in the direction of research and inquiry or into the development of instructional materials for different levels of schooling.

## A\&H G 5922. Master's seminar

 in art education (2)Professor Sullivan. Permission required. Required for all M.A. and Ed.M. students in the last 10 credits of their program. Guided independent work in the study of music, art, and dance, culminating in the development of a master's project. Special fee: $\$ 30$.

## A\&H G 6002. Teaching and administration of art education in college (3)

Dr. Churchill. The role and status of art in higher education, varying programs and objectives, problems and approaches in teaching and administration. Special fee: \$15.

## A\&H G 6021. Supervision and administration in arts education

 (3)Ms. Darvin. Permission required. Prerequisite: substantial teaching and/or arts administration experience. The function of supervision and administration: effective programs in city, county, and state school systems; in-service education and workshop techniques; school and community relationships; nontraditional settings such as museums, arts councils, etc. Special fee: $\$ 25$.

## A\&H G 6520. Seminar in clinical supervision in the arts: $\mathbf{K}$ through 12 (2)

Ms. Darvin. Permission required. Seminar in classroom supervision and its application to student teaching and in-service training. On-site field experience, analysis of observation and assessment, readings and discussion. Participants must have a minimum of 5 years teaching. Special fee: \$10.

## Studio Art

*A\&H G 4061. Printmaking I: Lithographic processes ( N oncredit or 2-3)
Mr. Pellettieri. A basic course in lithography for the beginning student. Stones, metal plates, screens, photo-lithographic plates, and silkscreen utilized. Group and individual instruction to enhance the skills and aesthetic perception of each student. Special fee: $\$ 100 . \mathrm{N}$ oncredit fee: \$555 plus special fee.
*A\&H G 4062. Printmaking: Etching I (N oncredit or 2-3) M r. Pellettieri. Designed to introduce the beginner to the intaglio process (hard and softground etching, etc.). Group and individual instruction to help students acquire printmaking skills and discover their artistic capabilities. Special fee: \$100. N oncredit fee: \$555 plus special fee.
*A\&H G 4063. Introduction to painting (N oncredit or 2-3) Mr. James. Development of fundamental painting skills and understandings within the quest for individual expression and style. Oils, acrylics, collage, and watercol or employed. N oncredit fee: \$555 plus special fee. Special fee: $\$ 60$.
*A \&H G 4084. Art and technology (N oncredit or 2-3)
Through class production utilizing electronic imagery systems (computer graphics, computer animation, video synthesizing, digital video effects), the student develops the ability to create artistic statements utilizing technological means. Offered summers. Special fee: $\$ 25$. N oncredit fee: $\$ 740$ plus special fee.

A\&H G 4089. New media, new forms: Technological trends in art education (2-3)
Examines new technological tools and new media in art education: the impact of technology in the art room, the changing role of the art educator, and the convergence of visual technologies. Offered summers. Enrollment limited. Special fee: $\$ 25$.

## *A\&H G 4092. Introduction to

 ceramics (N oncredit or 2-3)M r. Lollar. Enrollment limited. For beginners only. Introduction to the basic techniques of hand building, the potters wheel and slab construction. Surface decoration and threedimensional design. Stoneware and earthenware clay bodies and firing procedures will be addressed. Special fee: $\$ 100$. N oncredit fee: $\$ 555$ plus special fee.
*A\&H G 4093. Introduction to sculpture (N oncredit or 2-3) Professor Cyr. An exploration into the world of the third dimension through both figurative and abstract styles. There will be classroom discussions plus experimentation in wood and stone carving, clay, plaster, assemblage, and welding. Special fee: \$100. N oncredit fee: $\$ 555$ plus special fee.

## *A\&H G 4094. Introduction to

 photography (N oncredit or 2-3) Ms. Levan, Mr. Vezzuso. An introductory course in black and white photography and darkroom techniques. Participants will study applications of the camera as an instrument for producing artistic images, and the darkroom as a setting for reproducing those images, as well as the implications for using these techniques within various educational settings and contexts. Special fee: $\$ 100$. N oncredit fee: $\$ 555$ plus special fee.
## A\&HG 4096. Photography for

 educators (N oncredit or 2-3) Ms. Levan. Exploration of basic photo techniques applicable in the standard art classroom. Special fee: $\$ 25$. N oncredit fee: $\$ 555$.*A\&H G 5060. Introduction to drawing (N oncredit or 2-3) M s. R ose A critical examination of the relationship among structure, form and surface in drawing from life: objects, humans and land-
scape. Students will track the emergence and development of expressive configurations in their own work from the vantage point of evolving aesthetic and critical responses. Special fee: $\$ 60$. N oncredit fee: $\$ 555$ plus special fee.
*A\&H G 5061. Printmaking: Lithography II (N oncredit or 2-3)
Mr. Pellettieri. Designed to explore and develop the lithography printing process, including the use of color and photolithography. Group and individual instruction to promote the artistic and technical potential and capacities of each participant. Special fee: \$100. N oncredit fee: \$555 plus special fee.

## *A\&H G 5062. Printmaking:

 Etching II (N oncredit or 2-3) Mr. Pellettieri. Designed to expand the printmaking competencies and aesthetic development of the artist-teacher. G roup and individual instruction. Special fee: \$100. N oncredit fee: \$555 plus special fee.*A\&H G 5063. Advanced painting (N oncredit or 2-3)
Mr. James. Artists capable of inde pendent endeavor share their ideas and work in critiques and discussions and undertake advanced artistic problems suggested by the instructor or of their own devising. N oncredit fee: $\$ 555$. Special fee: \$100.
*A\&H G 5092. Advanced ceramics (N oncredit or 2-3)
M r. Lollar. Further studies of ceramics with an emphasis on individual projects on an advanced level. Educational aspects of the medium will be discussed al ong with marketing opportunities for the professional craftsperson. Spe cial fee: $\$ 100$. N oncredit fee: $\$ 555$ plus special fee.
*A\&H G 5093. Advanced sculpture (N oncredit or 2-3)
Professor Cyr. Further studies of sculptural elements with an emphasis on content, craft, and individual development. Special fee: \$100. N oncredit fee: \$555 plus special fee.
*A\&H G 5094. Advanced photography (N oncredit or 2-3) Mr. Feinsod. Advanced work concentrating on the inherent problems, limits and possibilities of the medium. Critical evaluation of student's own work and that of professionals through group discussion; attention given to different forms of presentation such as exhibitions, magazines, books, and slides. Special fee: \$100. N oncredit fee: $\$ 555$ plus special fee. Prerequisite: A\&HG 4094 or equivalent.
*A\&H G 5095. Color photography (2-3)
Mr. Vezzuso. Course addresses both the aesthetic and technical aspects of color photography including theory, lighting, use of positive and negative films, prints, exposure to a professional lab. Pre requisite: A\&H G 4094 or equivalent. Special fee: $\$ 100$.

## Independent Studio Work

A\&H G 6902. Studio work in art and education: sculpture ( N oncredit or 1-4)
Professor Cyr. Permission required. Enrollment limited. For advanced independent study. $N$ oncredit for majors only. Special fee: $\$ 100$.

A\&H G 6903. Studio work in art and education: drawing ( N oncredit or 1-4)
Faculty. Permission required. Enrollment limited. For advanced independent study. N oncredit for majors only. Special fee: \$30.

A\&H G 6904. Studio work in art and education: painting ( N oncredit or 1-4)
Faculty. Permission required. Enrollment limited. For advanced independent study. N oncredit for majors only. Special fee: $\$ 30$.

A\&H G 6905. Studio work in art and education: printmaking (N oncredit or 1-4)
Faculty. Permission required. Enrollment limited. For advanced independent study. N oncredit for majors only. Special fee: $\$ 100$.

## A\&H G 6906. Studio work in art

 and education: ceramics ( N oncredit or 1-4)Faculty. Permission required. Enrollment limited. For advanced independent study. N oncredit for majors only. Special fee: $\$ 100$.

## A\&H G 6907. Studio work in art

 and education: photography(N oncredit or 1-4)
Faculty. Permission required. Enrollment limited. Prerequisites: A\&H G 4094, A\&H G 5094 or extensive experience in photogra phy and darkroom techniques.

For advanced independent study. N oncredit for majors only. Special fee: \$100.

## A\&H G 6999. Exhibition rating

 (0)Rating of certification Ed.M. and Ed.D. exhibitions: offered in fulfillment of degree requirements. To be taken during the semester in which work is presented in the M acy Art Gallery. Special fee: \$120.

## Independent studies and research

A\&H G 4202. Fieldwork in art education (1-4)
Permission required. Professional activities in the field under faculty supervision.

## A\&H G 4902. Research and

 independent study in art education (1-4)Permission required. Research and independent study under the direction of a faculty member.

A\&H G 5202. Fieldwork in art education (1-4)
Permission required. Professional activities in the field under the supervision of a member of the arts faculty.

A\&H G 5902. Research and independent study in art education (1-4)
Permission required. Research and independent study under the direction of a faculty member.

## A\&H G 6202. Fieldwork in the

 art education (1-4)Permission required. Professional activities in the field under the supervision of a member of the arts faculty.

A\&H G 6422. Internship in the supervision and administration of the art education (1-4)
Qual ified students work as interns with supervi sors or administrators in sel ected sites. Satisfies the internship requirement for administrative and supervisory certification. Provision is made for assessment of fieldbased competencies in fulfillment of program requirements.

## A\&H G 6482. Internship in the teaching of college and museum

 programs (3)Permission required. Guided experiences in the teaching of the arts in departments of metropolitan area colleges. Sections: (1) Teaching art programs: college (2) Teaching art programs: museum.

## A\&H G 6972. Research and

 independent study in art education (1-4)Permission required. Research and independent study under the direction of a faculty member.

## See also:

A\&H 5500. Pro-seminar in arts and humanities (2)
Faculty. Arts and humanities faculty present their recent research or debate contemporary issues to illuminate critical issues in the field, current challenges to education, innovative methods of inquiry and contemporary cultural issues.

## Arts Administration (Code: TGC) <br> Program Coordinator: <br> Professor J oan J effri

## D egree offered:

M aster of Arts (M.A.)

## Special Application <br> Requi rements/I nformation:

In addition to the general Teachers College admission requirements, applicants to the program must submit a third letter of reference and scores on the GRE General Test. Personal statements of 750-1000 words should indicate why applicants wish to pursue careers in arts administration, what led them to this point and what they feel makes them good candidates for admission
to the program and to the field. An interview is required for finalists and will be arranged at any time in the application process by the Program Coordinator. Students usually begin the program in the fall semester only.

## Program D escription:

The program in Arts Administration encourages integration of all the arts and education, while focusing on the educational role of the artist and the missions and activities of arts and cultural agencies, collectives, and institutions.

The program reflects the conviction that the management of cultural institutions and enterprises is a profession that requires both creativity and commitment and that, at its best, the profession has a positive impact on the quality of artistic life. Arts Administration is organized in conjunction with the programs in arts and humanities education, further reflecting the importance of the basic educational role, mission, and activities of the arts in both profit and nonprofit sectors.

In order to respond to the challenge and responsibility of the arts at the start of the twentyfirst century, the arts manager must have an amalgam of managerial and financial skills, a knowledge of pertinent artistic disciplines, an awareness of community dynamics, a commitment to education in its broadest sense, and a sensitivity to the artist and the artistic process. The essence of the program lies in its effort to provide a carefully constructed core curriculum while making available the extraordinary range of intellectual and cultural resources of the College, the U niversity, and N ew York City.

Established at Columbia University's School of the Arts in 1980, the program moved to Teachers College in 1991, expanding its curriculum and student body and maintaining its interdisciplinary curriculum with Columbia's Graduate Schools of Business and Law. A special area of study has been created with the Program in Art Education which focuses on M useum Education. Similar collaborations are being developed with music, dance and other disciplines.

From its inception, faculty and staff have consisted of persons actively involved in the field as managers, board members, consultants, authors, and artists. In addition, the program draws on a vast pool of artists, arts managers, and persons in related professions to deliver and take part in guest lectures, seminars, and informal discussions.

The objectives of the program are to:

- Train new leaders to manage and administer arts and cultural venues
- R ai se standards of arts administration to a new level of social responsibility
- Broaden the horizons of arts educators, facilitating their interactions with the arts community
- Give arts educators new management and administrative tools
- Strengthen advocacy roles for artists, and
- Provide theoretical and practical preparation for students whose professional objective is a career in arts administration, arts education, or a combination of the two.

The Research Center for Arts and Culture acts as a complement and a resource for the Program, offering opportunities each year to A rts Administration students with a special
interest in research and public policy. The Center is committed to applied research in the relatively new disciplines of arts management and arts law, providing the academic auspices for exploration, education, pol-icy-making, and action.

## D egree requirements:

The M.A. degree requires a minimum of 60 points of course work, with 24 points from the program offerings listed below, 12 points through the $G$ raduate School of Business, 15 points in Teachers College courses, 9 elective points, an internship, and a master's thesis.

The core curriculum represents an unusual alliance among the faculties of Teachers College, the Graduate School of Business, and the School of Law. Included in the core requirements are principles of arts administration, cultural policy, fundraising, historical foundations and problem-solving in arts education, accounting, financial planning, marketing, business policy, labor relations, and copyright law. Students and applicants should refer to additional information on requirements available at the program office. Tuition rates may vary for certain elective courses, depending on the offering school. Each student is eval uated in the first year to ensure that satisfactory progress is maintained.

## Courses:

## A\&H G 4170. Principles and practice in arts administration

 (3)M s. J effri. Permission required. Basic overview in arts administration covering major areas of concern to small, medium, and large institutions. Specific aspects of arts management, planning, program devel opment, artist relations, marketing, and fundraising.

A\&H G 4173. A rts in context (3) Professor Bereson. Permission required. A seminar and lecturestyle course designed to provide a cultural context for discussions of aesthetic, ethical, and political questions that define and challenge the responsible arts administrator's role.

## A\&H G 4174. Law and the arts I

 (3)Mr. K oenigsberg. Permission required. Principal artistic applica tions of U.S. Iaw in areas drawn from copyright law, unfair compe tition and trademark law, misappropriation, First Amendment questions, miscellaneous torts including rights of privacy and publicity, defamation, interference with contract, other problems relating to authenticity of art works.

## A\&H G 4175. Law and the arts

 II (3)Mr. A arons, Ms. Clark, and Mr. Swords. Permission required. Lectures and seminars on not-forprofit corporations, alternative forms of organization and tax exemption; the role and problems of trustees, directors, and officers; commercial and political activity, administrative regulations concerning arts organizations, and arts-specific contracts.

A\&H G 4176. Support structures: development and fund raising in the arts and humanities (3)
Dr. Fleischer. Permission required. A practical exploration of fundraising research and proposal writing methods. Proposals are developed for private and public agencies and foundations. Course incorporates aspects of support for the arts, arts education, the humanities, education and artists.

## A\&HG 4180. Labor relations in

 the arts (3)Mr. Leibowitz. Permission required. Theory and practice. Special emphasis on employers, unions, contracts, grievance procedures in the arts. Simulated bargaining sessions, evaluation and discussion of dispute resolution, arbitration, contract results. Negotiation by student teams.

A\&H G 4575. Master's seminar in arts administration (3)
Mr. Vinik. Permission required. Full-time degree candidates only. Required for all master's students in the last 10 credits of their program. Guided independent work culminating in the development of a master's essay.

## A\&H G 4576. Master's seminar in arts administration B:

 research apprenticeship (3) M s. J effri/M r. Vinik. Interview required. Supervised individual apprenticeship to ongoing projects in arts management, arts law, and data and information gathering on living artists in the Research Center for Arts and Culture.
## A\&H G 5173. Principles and practice in arts administration: performing arts (3)

Mr. Vinik. Permission required. Prerequisite: A\&HG 4170. A continuation of A\&H G 4170 with special reference to the management principles and skills of the performing arts, including music, dance, and theater; audience development; unions; and the study of physical facilities.

## A\&H G 5174. Principles and

 practice in arts administration: visual arts (3)M s. J effri. Permission required. Prerequisite: A\&H G 4170. A continuation of A\&H G 4170 with special reference to the application of management principles and skills to the visual arts, including museums, commercial and cooperative gal leries, artists' spaces, public art, corporate and individual collectors.

## A\&HG 5175. Business policy and planning for the arts man-

 ager (3)Mr. Vinik. Permission required. Designed to integrate arts administration course work from business, law, and the arts. M oves from the financial, cultural, political environment to strategic planning tools to specific arts situations in the creation and implementation of policy and planning objectives.

## A\&H G 5178. Special topics: critical issues in arts manage-

 ment (3)Permission required. A course in conceptualizing problems. U se of existing documents, studies, databases to support investigations into critical issues, while identifying how these documents have been constructed, their hidden and political agendas, and suggestions for improvement and integration into existing systems.

## Practicum and Internship

A\&H G 4370. Practicum in arts administration and arts education (1)
Ms. J effri. Permission required. Supplement to the required internship. W ork with organizations or on projects on or off-campus; work must meet test of rel evance to student's program of study, supervisor approval, and judgment of satisfactory performance. At least 30 hours during the term; no more than 1 point per term; no more than 3 points during course of program for practicum.

## A\&H G 4470. Internship in arts administration and arts educa-

 tion (0 or 3)M s. J effri. Permission required. Internship arranged with host institutions on an individual basis, taking into account the student's needs, interests and capacities, and the host's abilities to integrate those with its operation in an educationally useful manner. Twenty hours per week over four months or the equivalent.

## Independent Research

A\&H G 4970. Supervised individual research in arts administration and arts education (3)
M s. J effri and staff. Permission required. Independent research in arts administration.

## Residency

A\&H G 4100. Master's essay residency (0)
Ms. Jeffri. Permission required. To maintain residency and receive advisement on the M aster's essay, students who have registered for the 60 required points of coursework and have not completed the master's essay, must register for this course after six terms. Special
tuition: the equivalent of 1 point of credit.

## See also:

A\&H G 4048. Creative computing applications in education and the arts (3)
A\&H G 4079. Exploring A merica's cultures: implications for arts education (N oncredit or 2-3) A\&H G 4090. Museum issues I: art museums and theirculture (3)

A\&H G 5090. Museum issues II: missions and standards (3)
A\&H G 5001. Research in arts education (3)
A\&H G 5002. A ssessment strategies for the arts ( N oncredit or 3 ) A\&H G 5019. Dance in cultural contexts (2-3)
A\&HG 5082. Philosophies of art in education (2-3)
A\&H G 5181. The arts in education (2-3)
A\&H G 5804. Museums as
resource: workshops at the Metropolitan Museum (1-4)
A\&H G 6021. Supervision and administration in arts education (3)

## Dance and Dance

## Education

(Code: TGD)
Program Coordinator: J udith Burton

## D egree offered:

Master of Arts (M.A.)*
*This program is currently not accepting applications for admission. For updated information about the program, please call the Office of Admission at 212-678-3710.

## Spedal Application

## Requirements/Information:

Acceptance into the program is by audition, interview, and a review of past dance-related experiences and educational background. W hile it is suggested that a candidate have an undergraduate degree in dance, an undergraduate degree in any field and other appropriate dance experiences will be considered for admission.

Auditions are held twice a year: J anuary and A pril. Details concerning the audition and special application forms for the program in Dance and Dance Education are avail able along with program information from the Dance Education office. Candidates for admission from foreign countries or from the western U nited States may audition via videotape. Information concerning format and specific requirements will be sent on request.

Students desiring scholarships, grants, fellowships, or financial aid are urged to audition in J anuary and to submit all required forms by the J anuary 15th schol arship deadline. Program assi stantships are available, as are limited merit scholarships.

A student in this program who wants to qualify for N ew York State teaching certification must complete the program and file for certification prior to February 1, 2004. Teachers College is developing new programs to meet regulations that go into effect after February 1, 2004. These programs will be outlined in next year's catalog.

## Program D escription:

The D ance and D ance Education program encompasses a broad conception of dance ranging from the traditions of dance as ritual and fine art to the popular view of dance in mass culture. Dance education is emphasized throughout the curriculum and is approached as a life-long activity, taking place in multiple settings and pursued by a variety of people. Courses in dance education examine the different settings in which the various dance forms reach their audience: public and private schools, higher education, arts centers, cultural institutions, video, tel evision and film, and other special settings.

Central to the program is a concern for the role of dance as it supports and promotes human growth and development through studio practice and cultural appreciation. The program is built around a core of courses considered essential to exemplary dance education.

The curriculum offers courses within four major areas: the body sciences, performance practice and anal ysis, dance pedagogy, and theory, research and implementation. Dance courses are offered in anatomy and kinesiology, composition, technique, body work, Laban M ovement A nalysis, cultural, historical and social contexts, production, teaching and curriculum.

U tilizing the vast resources of the $N$ ew York City metropolitan area, professional studio technique classes and other related courses may be taken for academic credit, provided that appropriate arrangements can be established with that school, program or organization.

In addition to courses taken in arts education, students are expected to sel ect courses from other offerings at Teachers College and Columbia University in order to fulfill degree requirements. W eek end workshops, master classes, colloquia, research/independent studies, fieldwork, and student teaching provide additional richness to diverse teaching, research and performing opportunities.

W ithin the program there are two tracks leading to the Master of Arts degree. The first is flexible, allowing the student to shape an individual program in consultation with a faculty advisor (minimum of 36 points). The second track offers experiences and study that lead to an M.A. plus a K-12 Dance Teacher Special Certification in the State of N ew York (36
points). In order to meet certain state and degree requirements, students work closely with their advisors to select appropriate courses and evaluate abilities.

Completion of the K-12 Certification track qualifies the graduate (upon successful completion of state tests) to teach in public education, $K-12$, in the state of $N$ ew York. Reciprocal arrangements with other states can qualify the graduate to teach in other states, as well. Students completing the degree (with or without certification) have continued to doctoral study in dance or related fields; have worked in education departments of cultural institutions; and have taught in private education, colleges and universities. Other graduates have continued to perform and choreograph in N ew York and other areas.

Student work may be shown as part of our Graduate Student Dance Concert Series. Some students choreograph, perform and self-produce professionally while pursuing a graduate degree from Teachers College. Teaching, performance, research and administrative internships offer students "real world" experience. The Dance and Dance Education program maintains professional partnerships with many of the major dance institutions and artist/ educator/scholar arts organizations in N ew York City, nationally and internationally. Each internship is tailored towards the goals of the individual student.

## D egree Requirements:

Required courses for both tracks are:

- BBSR 4005, Applied anatomy and biomechanics (if not studied in the undergraduate degree)
- A\&H G 5012, K inesiology for dance
- A\&H G 5017, M ovement retraining
- A\&H G 4018, Laban M ove ment Analysis I
- A\&H G 5013, Choreography I
- A\&H G 5018, D ance production
- A\&H G 5019, D ance in cultural contexts: theory and application
- A\&H G 5120, Introduction to dance research
- A\&H G 5007, Curriculum design in dance education
- A\&HG 5016, Teaching dance: adolescence through adulthood OR
- A\&H G 5110, Teaching children's dance

The K-12 certification track will complete both A\&H G 5016 and A\&H G 5110, a teaching practicum (A\&H G 4203 Fieldwork) and Supervised Student Teaching (A\&H G 4703) as well as several education courses.

Courses: (* $=$ course open to non-majors)

## Body Sciences

A\&H G 5012. Kinesiology for dance ( N oncredit or 3 )
Prerequisite: BBSR 4005. Dance movements are anal yzed and understood through application of anatomical principles. Special consideration is given to body alignment, range of motion, and identification and remediation of poor movement habits. Special fee: $\$ 25$. N oncredit fee: \$355.
*A\&H G 5017. Movement retraining (N oncredit or 2)
Provides an experimental framework for movement learning for dancer/choreographers, special educators, dance and arts educators and school psychologists. Based on the systems of Bartenieff Fundamentals and Body-M ind Centering both teaching experientially the observable features of motor development and their relationship to child and adult movement habits. Special fee: $\$ 25$. N oncredit fee: $\$ 355$.

## Performance Practice and Analysis

*A\&H G 4010. Modern dance I (N oncredit or 2)
Faculty. D evelops an understanding of the basic principles of modern dance technique through a sequence of movement experiences, exploration or improvisational structures, and discussions of dance performance viewing. $N$ oncredit fee: \$355.
*A\&H G 4011. Modern dance II (N oncredit or 2)
Faculty. Permission required. Prerequisite: A\&H G 4010 or equiva lent. Continuation of M odern DanceI. Designed to expand on the basic principles of modern dance technique through the exploration of learned dance phrases, improvisational structures and/or selected choreography and discussions of dance performance viewing. N oncredit fee: $\$ 355$.
*A\&H G 4014. Ballet I (N oncredit or 2)
Faculty. Practice and examination of the fundamentals of classical ballet, including elements of technique, theory, and historical background. N oncredit fee: $\$ 355$.
*A \& H G 4015. International
dance forms (N oncredit or 2) Faculty. Theoretical and experiential exploration of one or more dance forms from other cultures enabling entry into the contexts of other cultures. N oncredit fee: $\$ 355$.
*A\&H G 4018. Laban movement analysis I (N oncredit or 3) A course in the principles of human movement as developed by Rudolf von Laban, and further applied in such areas as dance, acting, sports, work patterns, gesture, physical and dance therapy, psychology, and anthropology. $M$ ovement experience and analysis on four integrated levels: body, space, dynamic qual ities and movement relationships to self and others. Special fee: $\$ 25$. N oncredit fee: $\$ 355$.
*A \& H G 4019. Laban movement analysis II (N oncredit or 2-3) Prerequisite: A\&H G 4018 or equival ent. Continuation of Laban movement anal ysis I. An examina tion of the principles of human
movement as developed by movement theorist Rudolf von Laban. Continued analysis of the principles of Effort and Shape (Choreutics/space harmony) as guided through movement experiences. Dynamic qualities and spacial potential s are analyzed, explored and synthesized through spontaneously invented or reproduced dance/movement material in rela tion to self and others. Special fee: $\$ 25$. N oncredit fee: $\$ 355$.

## A\&H G 5013. Choreography I

 (N oncredit or 2-3)D evelopment of strategies and understandings concerning the nature of the dance-making process through improvisation, creation of short movement studies and complete dances, and viewing/perceiving the processes and results. Special fee: $\$ 30$. N oncredit fee: $\$ 355$.

## A\&H G 5014. Choreographic problems (2-3)

Permission required. Prerequisites: A\&HG5013 or equival ent. An indepth exploration of creative process and teacher/learner interactions as applied to the teaching of choreography. Special fee: $\$ 35$.

## A\&H G 5018. D ance production (0-2)

A lecture/laboratory class focusing on theory and practice of production of dance concerts and events. Special fee: $\$ 40$. Tuition for zero (0) points: $\$ 300$.

## A\&HG 5111. Dance technique

 (N oncredit or 1)Permission required. Enrollment limited. Studio course to study techniques in selected professional dance schools/studios in N ew York City. Spring and summer semesters meet on campus. Course meets two days per week. Special fee: $\$ 60$. N oncredit fee: \$355.

## Theory: Research and Implementation

A\&H G 4903. Research and independent study in dance education (1-4)
Faculty. Permission required. Research and independent study under the direction of a member of the dance education program faculty.
*A \& H G 5019. D ance in cultural contexts: theory and application ( N oncredit or 3 )
Enrollment limited. A view of dance focusing on historical, sociological, religious, anthropological, cultural and political perspectives. This course includes individual and group learning of a selected culture's dance(s) and practical, developmentally appropriate methodologies for the
teaching/learning process in various contexts. Special fee: $\$ 25$. N oncredit fee: \$355.

## A\&H G 5120. Introduction to dance research (2)

This course provides a forum for preparing the master's project proposal. This course includes an introduction to qual itative inquiry in dance and dance education. Special fee: \$25.

## A\&H G 5903. Research and

 independent study in dance education (1-4)Permission required. Research and independent study under the direction of a dance education faculty member.

## Dance Pedagogy

## A\&H G 4203. Fieldwork in

 dance education (1-4) Permission required. Professional activities in the field under the supervision of a member of the dance education program faculty.A\&H G 4703. Supervised teaching in dance education (4)
Permission required. Prerequisites: A\&H G 5016 and A\&H G 5110. A variety of supervised teaching experiences ( $K-12$ ), supplemented by conferences, eval uation, and seminars. The student completes 200 hours in schools observing, assisting, teaching, and evaluating. Required for those interested in dance certification in N ew Y ork City and other states. M.A. candidates should plan to take student teaching in their last semester of course work towards their degree.

## A\&H G 5007. Curriculum design in dance education

( N oncredit or 3 )
Introduction to principle models of dance education curricula and supporting literature embedded within historical context. A nal ysis
of curriculum organization, discipline content, desired learning outcomes, human devel opment in relation to dance study and assessment models as highlighted by current research. Special fee: $\$ 25$. N oncredit fee: \$355.
*A\&H G 5016. Teaching dance: adolescence through adulthood (N oncredit or 3)
Prerequisites: A\&H G 4018,
A\&H G 5110, or equival ent.
Enrollment limited. Theory, practice, history and philosophy of goals, concepts, methods and strategies for teaching dance in various settings of adolescents and adults of all ages. Special fee: $\$ 25$. N on credit fee: \$355.
*A\&HG 5110. Teaching children's dance (N oncredit or 3 ) Permission required. Enrollment limited. An exploration of the materials and methods of children's dance as an art form and as an educational tool to enhance learning in the classroom or studio setting. Includes theory and practice in planning, implementing, and evaluating children's dance. Special fee: $\$ 25$. N oncredit fee: $\$ 355$.

A\&H G 5203. Fieldwork in dance education (1-4)
Permission required. Professional activities in the field under the supervision of a member of the dance education program faculty.

A\&H G 5519. Current topics and issues in dance education (1-3)
Permission required. Enrollment limited. Focus on topics and issues in dance education (i.e., curriculum design, assessment, advocacy) as highlighted by current research or conferences. Special fee: $\$ 25$.

## See also:

- BBSK 4005. A pplied anatomy and biomechanics (3)
- A\&H G 4020. Music for the world's children (2-3)
- A\&H G 4048. Creative computing applications in education and the arts (3)
- A\&H G 4079. Exploring America's cultures: implications for arts education (3)
- A\&H G 4082. The arts in contemporary life (2-3)
- A\&H G 4084. Art and technology (N oncredit or 2-3)
- A\&H G 4089. New media, new forms: technological trends in art education (2-3)
- A\&H G 4090. Museum issues I: art museums and their culture (3)
- A\&H G 5001. Research in arts education (3)
- A\&H G 5002. Assessment strategies for the arts ( N oncredit or 3)
- A\&HG 5025. Creativity and problem solving in music education (N oncredit or 2-3)
- A\&HG 5082. Philosophies of art in education (2-3)
- A\&H G 5181. The arts in education (2-3)
- A\&HG 5804. Museums as resource: workshops at the Metropolitan Museum (1-4)
- A\&H 5500. Pro-seminar in arts and humanities (2)


## Music and Music

## Education:

(Code: TGM)
Program Coordinator:
Professor H arold Abeles
W ebsite:
www.tc.columbia.edu/
academic/A \&H dept/tgm

## D egrees offered:

M aster of Arts (M.A)
M aster of Education (Ed.M.) Doctor of Education (Ed.D.) Doctor of Education in College Teaching of Music (Ed.D.C.T.)

## Special Application Requirements/I nformation:

Applicants for the M.A. must have an undergraduate degree with a major in music or music education; or an undergraduate degree with evidence of sufficient musical training and experience to qualify the student for graduate work in this field.

Teachers College M aster of Education students wishing to apply to the Doctor of Education Program are required to submit a scholarly paper along with their application for change of degree status. It is expected that most students will al so use this scholarly
paper as the final project for their Ed.M. degree.

A student in this program who wants to qualify for New York State teaching certification must complete the program and file for certification prior to February 1, 2004. Teachers College is devel oping new programs to meet regulations that go into effect after February 1, 2004. These programs will be outlined in next year's catal og

Applicants for the Ed.D. normally have previously recei ved a M aster of A rts or M aster of M usic degree. A pplicants for the Ed.D. or the Ed.D.C.T. are encouraged to have several years of professional experience as an educator or performing musician prior to beginning the doctoral program. Both doctoral programs are very selective with only a few students being admitted each year.

Applicants for the Ed.D.C.T. must submit a recent audiotape of their performance or arrange for an audition.

Applications for the Ed.D. and the Ed.D.C.T. are reviewed once each year, in the spring.

## Program D escription:

The Program in M usic and M usic Education embraces humanistic values as they rel ate to contemporary musical and educational life while respecting the musical traditions of the past. The faculty in M usic and Music Education recognize the importance and uniqueness of the arts in our society and strive to offer flexible and individualized programs for the preparation of musician-educators. They are seasoned practitioners, who reflect a wide range of expertise in comprehensive musicianship, early childhood music, the full spectrum of public and private school music through graduate school and research practices.

The four degree programs in M usic and M usic Education are each built around a core of courses considered central to exemplary music education. Beyond the core, students have flexibility to plan with their advisor individual programs designed to meet particular needs and goals.

In addition to courses in music and music education, students are expected to select courses from other offerings of Teachers College and Columbia U niversity in order to fulfill degree requirements. The 36 point M aster of Arts offers N ew York State approved Teacher Certification; students in this M.A. program take course work and then a semester of carefully guided student teaching in a school that reflects the M usic Program's philosophy.

Students in the remaining degree programs can prepare for the following positions:

- Teaching and supervision of music in elementary and secondary schools
- Teaching and administration of music in colleges and universities
- Teacher of music in private school and studios
- Research and practice of music in institutions of higher learning, and
- Interdisciplinary areas of arts and humanities, music and special education, new technol ogy in music education, and adult education.

Programs of study for all degrees include five maj or categories: pedagogy of music, research, comprehensive musicianship, performance, and non-major requirements. The music courses are divided into four general areas:

- Pedagogy
- Comprehensive M usicianship
- Music Performance
- Research

The traditional M.A. program is a post-bachelor's degree program that provides graduate studies with a bal ance of work in performance, comprehensive musicianship, pedagogy, and research. The degree program is designed to allow flexibility in course selection, so that each student may prepare for his or her professional career in music education.

The M aster of Education degree (Ed.M.) in Music Education is an advanced professional degree for practitioners in music education that is designed to prepare students for a career in elementary schools, secondary schools, and colleges. It is awarded upon satisfactory completion of sixty points of graduate study. M ajor emphasis is placed on the improvement of instruction and curriculum.

The program for the degree may also be designed to include N ew York StateCertification as a School Administrator and Supervisor. Candidates who show clear promise of success in further graduate study may apply the completed course work toward the doctorate.

TheEd.D. and theEd.D. in College Teaching offer prepara tion for professional careers in a variety of settings. The Ed.D. prepares students for positions in the Teaching and Supervision of M usic in Elementary and Secondary Schools, the Teaching and Administration of Music in Early Childhood Settings, the Teaching of Music in Private School and Private Studios, the Teaching and Administration of Music in Colleges and Universities, and careers in M usic and Interdisciplinary A reas, such as the Arts and H umanities, Special and Adult Education. The Ed.D. in CollegeTeaching is designed primarily for students with a high level of performance skills whose goal or present position is focused on the
teaching of performance in higher education.

## D egree Requirements:

## Master of Arts

A minimum of 32 points is required. Some programs may exceed the minimum number due to professional goals, special interests, or deficiencies in undergraduate. No more than 12 points of graduate credit from other faculties of the University may be applied to the minimum point requirement, and no points will be accepted from other institutions.

A student enrolled in the 32point master's degree is expected to plan a program of study with an advisor that reflects a bal ance of work in each of four areas of music study, based upon the training, experience and specific needs of the student. The four areas of music study are: 1) Pedagogy, 2) Research, 3) Comprehensive Musicianship, and 4) Music Performance. In order to broaden the student's background, in addition to the course work in music, three Teachers College courses (a course is defined as one for which at least two points are earned) outside of the Program (A\&H G) are required. Specifically, students are expected to enroll in:
(1) A \& H G 5921. M aster's seminar in music education (2)
(2) At least two courses from the Pedagogy area, one of which must be selected from the following:

- A\&H G 5020, Foundations of music education
- A\&H G 5025, Creativity and problem solving in music education
- A\&H G 5026, M usic skills and the creative strategy
- A\&H G 6001, Teaching and administration of the arts in college music
(3) At least one course from the R esearch A rea (A \&H G 5023, Vocal Pedagogy, may be used to fulfill this requirement).
(4) At least one course from Comprehensive M usicianship A rea.
(5) At least one course from the M usic Performance A rea.
(6) The remaining courses in music can be selected from any of the four areas, in consultation with your advisor.

In order to graduate at student must complete the necessary course work, complete a summative project, and demonstrate competent musicianship in performance.

## M aster of Arts with K-12 Certification

The M.A. degree with Teacher Certification is a program designed for students with an undergraduate degree in music who wish to prepare for teaching music in the public schools. The 36-point degree program leads to both the M.A. degree and $N$ ew York

State Teacher of M usic, K-12
Certification. Students desir-
ing state certification should identify themsel ves at their first registration, and be assigned to the certification advisor for guidance in this process. All requirements for certification can be completed in the M.A. program if the candidate is identified at the first registration.

Teachers C oll ege courses required to fulfill statecertification require ments (10 points):

- A\&H G 5025, Creativity and Problem Solving in M usic Education
- A \& H G 5026, M usic Skills and the Creative Strategy
- A\&H G 4701, Supervised Teaching of M usic Section 1
- C\&TY 4504, Child A buse/AIcohol and Drug A buse Detection

Pedagogy R equirements (8 points): Students may choose courses from the Teachers Col lege Catal og with the assistance of the faculty advisor.

Required $N$ on- $D$ epartmental Courses (6-9 points): Three Teachers College courses, each a minimum of 2 points, selected from outside of the Program in M usic Education (courses other than "A \&H G").

Other M usic C ourses (9-12 points): Elective courses to fulfill state certification requirements

In order to graduate students must complete the necessary course work, complete student teaching (the summative project), and demonstrate competent musicianship in performance.

## Master of Education

The general course requirement is a minimum of 60 graduate semester hours, 30 points of which must be completed under the auspices of Columbia University, with at least 18 points in Teachers College course work. Candidates who have earned a M aster of Arts degree from Teachers College must complete at least 45 of the 60 graduate points at Teachers College.

Programs of study and courses for the degree are divided into four general areas: 1) pedagogy, 2) research, 3) comprehensive musicianship, and 4) music performance. A program of study should reflect a balance of courses in these areas. In addition to the music program courses, each candidate is expected to complete four courses of at least 2 credits each from outside the Programs in M usic Education (A\&HG).

These electives are to be selected from areas deemed appropriate in consultation with the faculty advisor.

Candidates for the Ed.M. degree must complete a summative project. H owever, students planning to apply for admission to the doctoral program at Teachers College may choose to write a scholarly paper demonstrating their ability to research a topic approved by their advisor.

N en York StateA pproved Program for M usic A dministrative Supervisory Certification Institutional recommendation for the certificate is based upon the completion of the require ments for the Ed.M. degree in Music Education (refer to Ed.M. degree statement) which shall include 18 points in course work dealing with public school administration and supervision and an internship. Points related to the internship are not to be included in the 18 points of school administration and supervision courses.
I. F undamentals of Administration (6 points)
Courses chosen in consultation with Certification Coordinator.
Suggested courses:

- ORLA 4001, Overview of administration
- ORLA 4031, Leadership \& institutional anal ysis: early childhood education administration
- ORLA 4033, Leadership \& institutional analysis: administration of secondary schools
- ORLA 4038, Leadership \& institutional anal ysis: reforming elementary schools
- ORLA 6018, Staff personnel administration
II. Curriculum and Teaching: (6 points)
Courses chosen in consultation with Certification Coordinator. Suggested courses:
- C\&T 4004, Basic course in school improvement
- C\&T 4008, Creativity, critical thinking, and curriculum design
- C\&T 4051, Supervision for elementary and secondary schools
- C\&T 4052, Designing curriculum and instruction
- C\&T 4145, The education of youth and adolescents
- C\&T 4160, Supervision in pre-service teacher education programs
- C\&T 5053, Staff devel opment processes and procedures
- C\&T 6152, Changes in role and organization of instructional leaders
III. M usic Education: (6 points)
- A\&H G 5020, Foundations of music education
- A\&H G 6021, Supervision and administration in arts education
IV. Internship: (1-4 points)
- A\&H G 6421, Internship in the supervision \& administration of the arts-music education


## Doctor of Education and Doctor of Education in College Teaching of an Academic Subject

Basic requirements include:

1) satisfactory completion of a program of 90 points beyond the baccal aureate degree, 2) successful performance on a departmental certification examination, and 3) preparation and defense of a dissertation.

At least 54 points of work must be completed at Teachers College. A maximum of 36 graduate points may be accepted from other recognized graduate schools. Transfer credits are evaluated and allocated by the Admissions Office for consideration by the Music Program.

D octoral students must complete a minimum of 15 points of course work in areas other than those in the Music Program. For the Ed.D. in College Teaching program, two of these courses must be in the area of higher education.

To insure breadth in professional background, course work should result in competency in the following four broad areas:

1) Pedagogy, 2) Research, 3) Comprehensive M usicianship, and 4) M usic Performance. Refer to the catal og for course listings under these general headings.

I nitially the student is admitted to a program of study leading toward becoming a certified doctoral candidate when the following has been achieved: 1) successful completion of at least 15 points of course work and 2) passing the departmental certification examination.

The preparation and the defense of a dissertation is required for the doctoral degree. W hen writing the dissertation, each candidate has a sponsor and an additional committee member. M ost often the sponsor is a faculty member of the Program in M usic and Music Education. Committee members may be chosen from among the professorial faculty el sewhere at Teachers College or the U niversity. Topics are selected from a variety of areas to meet professional needs and interests. For more details, consult the dissertation proposal bulletins.

Students should consult the appropriate bulletins of the Office of Doctoral Studies and Doctoral $H$ andbook on the Music Education program website: www.tc.columbia.edu/ academic/A \&H dept/tgm for more specific information.

Courses: (* = course open to non-majors)

## Pedagogy

A\&H G 5141-A\&H G 5143. Special topics in music
Faculty. Selected topics of interest in music examined in depth. Topic announced each semester.

A\&H G 5141. Research ( N oncredit or 1-4)
A\&H G 5142. Pedagogy ( N oncredit or 1-4)
A\&H G 5143. Comprehensive
Musicianship (N oncredit or 1-4)
*A\&H G 4020. Music for the world's children (2-3)
M s. Greher. Focuses on the development of student's musical thinking through active participation in classroom strategies. A broad multicultural repertoire serves to stimulate children's creative musical responses through movement, and exploration of sound and imagery. Includes integrated creative activities involving the combination of movement, vocal and instrumental performance, and listening. Materials fee: $\$ 30$.
*A \& H G 4021. Designing musical experiences for young children (2-3)
Professor Custodero. Enrollment limited to 25. Overview of appropriate interactive practices, environmental design, and curriculum planning for young children from birth through age 7. Includes observations of exemplary teaching as well as practicum experience. Special fee: $\$ 20$.

## A\&H G 4023. Choral methods,

 procedures, and materials (3) Dr. A nagnost. Recommended for vocal-choral majors. A study of the choir as a performing medium.Rehearsal techniques and procedures as they apply to the development of artistic choral performance. Choral literature available for school, community, and church groups at all levels of proficiency. M aterials fee: $\$ 50$.

## A\&H G 4028. Practices and materials of teaching piano

 ( N oncredit or 3-4)Faculty. The presentation and analysis of procedures for group and individual piano instruction.

M odern texts, supplementary materials, and general piano repertory are discussed with relation to their use in private studios and public schools.

A\&H G 4029. Introduction to new technologies in music education (2-3)
Mr. Frankel. Enrollment limited to 12. U nderstanding the principles of creating and teaching with synthe sizers, MIDI, computers, emphasizing the application to music educa tion. M aterials fee: $\$ 50$.
*A\&HG 4030. Integrating music in the classroom (2-3) Professor Pogonowski. Primarily for non-majors. Focuses on music and its relationship to other curriculum areas as a means to facilitate students' abilities to make connections and conceptual ize points of view from a variety of perspectives. Materials fee: $\$ 30$.
*A \&H G 4048. Creative computing applications in education and the arts (3)
Professor A beles. This course will examine strategies for devel oping creativity and problem-solving behaviors employing arts and other educational software. Pedagogical principles underlying the design of the software and instructional applications will be reviewed. Spe cial fee: \$75.

A\&H G 4051. Musical theater in education (2-3)
Faculty. A study of the process of producing a musical in educational theater. A brief survey of the history of the American musical. Special emphasis given to the functions of the director and musical director at all phases of the production process. Students acquire skills as directors and singer-actors through scene study. M aterials fee: $\$ 30$.

A\&H G 4701. Supervised teaching in music education (4) Professor Pogonowski. Permission required. A variety of supervised teaching experiences ( $\mathrm{K}-12$ ), supplemented by conferences, evaluation, and seminars. The student completes 200 hours in schools observing, assisting, teaching, and evaluating. Required of those seeking state certification in M usic in N ew York City and other states. Prerequisites: A\&H G 5025. M.A.
candidates who are student teaching must complete a minimum of 36 points.

## A\&H G 5020. Foundations of music education (3)

Professor Abeles. An examination of the historical, philosophical, psychological and sociological bases of music education, emphasizing the implications for the development of curriculum, policy, and administrative leadership.

A\&HG 5021. Piano instruction for children (N oncredit or 1-3) Professor Custodero. For private and group music teachers. Developmentally appropriate strategies and materials for keyboard instruction integrating improvisa tion, composition, movement, singing, and ensemble playing. Special fee $\$ 25$.

## A\&H G 5023. Vocal pedagogy I

 (3)Dr. Goffi. Permission required. Investigation and application of recent research in voice production and pedagogy. Phonetic approach to singers' diction; consideration of style and interpretation in the performance of assigned solo and concert literature.

## A\&H G 5024. Vocal pedagogy II (3)

Dr Goffi. Permission required.
Prerequisite: A\&H G 5023. Continuation of background studies begun in A\&H G 5023, Vocal Pedagogy I. Directed teaching of voice comprised of student assignments, observed lessons, and lesson evaluation. Diagnosis of vocal condition and the design of lesson plans to affect change and growth will be emphasized. Special fee: $\$ 50$.

A\&HG 5025. Creativity and problem-solving in music education (N oncredit or 3) Professor Pogonowski. Designed for pre-service and in-service majors to experience and explorecritical thinking as a means for establishing a framework for music learning at all levels. M aterials fee: $\$ 30$.

## A\&H G 5026. Music skills and

 the creative strategy ( N oncredit or 3)Professor Pogonowski. Enrollment limited to 25. Prerequisite:
A\&HG 5025. Designed for pre
service and in-service majors to examine and experience problemsolving techniques for developing musical skills within the framework of the creative strategy. $M$ aterials fee: $\$ 30$.

## A\&HG 5029. Intermediate and advanced applications of new technologies in music education

 (N oncredit or 2-3)M r. Frankel. Enrollment limited to 12. Specific demonstrations with new music technology emphasizing the development of creative strategies for music education at various levels. Special fee: \$75. N oncredit fee: TBA.

A \&H G 5047. Creative strategies for teaching music literature (3) Professor Pogonowski. Selected works from the repertoire serve as the basis for demonstrating how to develop creative music strategies for teaching and enhancing the learning of music literature at all levels, including college teaching. M aterials fee: \$30.

A\&HG 5921. Master's seminar in music education (2)
Professor Custodero. Permission required. Required for all M.A. and Ed.M. students in the last 10 credits of their program. Guided independent work in the study of music culminating in the development of a master's project. Special fee: $\$ 25$.

## A\&H G 6001. Teaching and administration of music

 in college (3)Professor Abeles. M ajor issues relating to the curriculum, instruction, and administration of programs of music and music education in colleges and universities.

A\&H G 6022. Piano teaching in college (N oncredit or 1-3)
Faculty. Procedures and materials for piano and electronic keyboard instruction at college level, including non-music beginners, music education majors and professional pianists.

## A\&H G 6023. The teaching of

 applied music in college (2-3) Drs. Glaser and Goffi. Music majors only. Theory and practice of applied music instruction in college for both major and non-major students. Emphasis on developingindividual competence and musical understanding.R equired for TGM students who wish to be Graduate Assistants in the applied music program.

## A\&H G 6024. Piano teaching:

 intermediate and advanced ( N oncredit or 1-3) Faculty. Procedures and materials for piano instruction from the intermediate to college levels, including problems of the adolescent student.
## A\&H G 6421. Internship in the supervision and administration of music (1-4)

Qualified students work as interns with supervisors or administrators in selected sites. Satisfies the internship requirement for administrative and supervisory certification. Provision is made for assessment of field-based competencies in fulfillment of program requirements.

## Research

A\&H G 5001. Research in arts education (3)
Professor A beles. An examination of research studies and strategies for conducting research in the arts. Special fee: $\$ 25$.

A\&H G 5002. A ssessment strategies for the arts ( N oncredit or 3 ) Professor A beles. An examination of traditional and alternative strategies for assessing art objects and artistic performance, knowledge of the arts, and attitudes toward the arts.

## A\&H G 5003. Introduction to

 music perception and cognition (3)Professor A beles. An examination of acoustic and psychological foundations of music.

A\&H G 5022. Young children's musical development (2-3) Professor Custodero. Overview of significant issues and current research regarding the development of musical skills and understandings in children through age 7. Includes observations of children's spontaneous music-making. Special fee: $\$ 20$.

## Comprehensive Musicianship

*A\&H G 4043. Contemporary music (3)
Permission required for nonmajors. The changing role of music in the 20th century; evolution of new social functions of music and musical institutions; the contemporary composer and development of new musical languages. Special fee: $\$ 25$.

## *A\&H G 4044. Interpretation of

 Baroque music (N oncredit or 2) Dr. Earle. Permission required for non-majors. Laboratory courses in ornamentation improvisation and idiomatic conventions of-notation and rhythm in Baroque keyboard solo and ensemble music.A\&H G 4045. Popular and youth music in the curriculum (Noncredit or 2)
Faculty. A comprehensive study of the components of jazz, folk, rock, country, and other popular idioms through analysis and performance with application to school music curricula. Special fee: $\$ 25$.

A\&H G 5030. Music analysis (3)
Dr. Nowak. For Music majors only. Designed for doctoral students whose dissertations relate to musical analysis. Techniques and approaches to anal ysis based upon representative literature of all periods.

A\&H G 5031. Counterpoint (2) Faculty. The study of counterpoint techniques in a wide range of Baroque, classical, and romantic settings with anal ysis and related writing assignments.

## A\&HG 5032. Comprehensive

 musicianship I (3)Professor Pogonowski. Through analysis, composition, critical listening, improvisation, and performance, I7th and I8th century theoretical constructs are explored, including an overview of the development of harmony and polyphony leading up to these eras. M aterials fee: $\$ 30$.

## A\&H G 5033. Comprehensive

 musicianship II (3)Professor Pogonowski. M aximum enrollment: 25. An examination of 19th century theoretical constructs through analysis, composition, crit-
ical listening, improvisation, and performance. M aterials fee: $\$ 30$.

A\&H G 5040-A \&H G 5041. Interpretation of piano literature (N oncredit or 3)
Faculty. Prerequisite: A\&H G 5350 or equival ent. The study and performance of representative piano compositions from the Baroque through contemporary periods, with appropriate harmonic, stylistic, and technical analysis.

## A\&HG 5042. Choral literature

 survey (2-3)Dr. A nagnost. Recommended for vocal-choral majors. A comprehensive survey of representative choral music, from the early R enaissance period to the present. Examination of the devel opment of choral forms, stylistic features, and performance practice of the periods. M aterials fee: $\$ 50$.

## A\&HG 6030. Composition and

 analysis (3)Dr. N owak. Prequisite: A\&H G 5032 and 5033. For music majors only. Recommended for doctoral students whose dissertations involve composition or musical analysis.

## Music Performance-Conducting

The non-credit fee for conducting courses is equal to 2 points at the current tuition rate.

## A\&H G 4050. Conducting and

 score reading (N oncredit or 2-3) Dr. A nagnost. Principles of conducting as a performing medium; emphasis on technique development for effective artistic visual portrayal of music; reading and memorization of scores. Classes videotaped for viewing. Special fee: \$50.
## A\&H G 5050. Advanced con-

 ducting and interpretation (N oncredit or 2-3) Dr. A nagnost. Prerequisite: A\&H G 4050 or equivalent. For students experienced in conducting. Reading and memorization of scores involving clefs and transpositions. Videotapes made and studied. Special fee: $\$ 50$.
## Music PerformanceInstrumental/Vocal

The non-credit fee for instrumental instruction is equal to 2 points at the current tuition rate.

## *A\&H G 4055. Class instruction in piano for non-music majors

(N oncredit or 2)
Faculty. Class instruction in piano for students with little or no musical background. H ow to read and createmusic at the piano; ways to use music in relation to major study or personal enrichment.

## A\&H G 4056. Chamber music

 (N oncredit or 2)Dr. Earle. For music majors only. The study and performance of chamber works from the B aroque through contemporary periods. Special fee: $\$ 35$.

## A\&H G 4057. Sight-reading at the piano (N oncredit or 2)

 Faculty. Practicum for keyboard majors on the devel opment of sight-reading techniques. To improve skills and gain a conceptual understanding of the reading process.
## A\&H G 4058. Piano ensemble

 (N oncredit or 2)Faculty. Survey and performance of original works for duet and two pianos from the easier grades through the advanced repertory. Special emphasis on teaching procedures and ensemble rehearsal techniques.

A\&H G 4059-A\&H G 4060. Jazz improvisation (N oncredit or 2) Dr. K onowitz. A sequentially developed performance experience focusing on the basic skills and concepts of jazz performance and improvisation for keyboard, instrumental and vocal musicians. Students will learn how to improvise from the beginning, performing and listening to standard jazz and blues repertoire.
*A\&H G 4150. Instrumental music instruction I (N oncredit or 2)

Faculty. Written permission from the M usic Education Program, R oom 520A H orace M ann, required. Primarily for beginning students. W ith permission of the advisor, students may register con-
tinuously for the above number. Special fee: $\$ 35$.
*A\&H G 4343. Organ instruction for non-majors (N oncredit or 2) Dr. Schuder. W ritten permission from the M usic Education Program, R oom 520A H orace M ann, required. Class and individual instruction focusing on the rudiments of organ technique, leading to the playing of four-part chorales and simpletrios. Piano proficiency required. With permission of the advisor, students may register continuously for the above number Special fee: $\$ 35$.
*A\&H G 4350. Piano instruction for non-majors (N oncredit or 2) Faculty. W ritten permission from the M usic Education Program, Room 520A H orace M ann, required. Individual instruction includes repertory, technical, and musical problems, performing experience, and understanding of teaching strategies. W ith permission of the advisor, students may register continuously for the above number Special fee: $\$ 35$.
*A\&H G 4351. Harpsichord instruction I (N oncredit or 2) Dr. Earle. W ritten permission from the M usic Education Program, R oom 520A H orace M ann, required. H arpsichord lessons designed especially for keyboard students with no previous harpsichord experience. Emphasis on elements of style and special techniques of performance of representative early keyboard music. W ith the permission of the advisor, a student may register continuously for the above course number. Special fee: $\$ 35$.

## *A\&H G 4352. Voice instruction

for non-majors (N oncredit or 2) Faculty. W ritten permission from the M usic Education Program, R oom 520A H orace M ann, required. Beginning voice instruction: technical and musical growth through examination of teaching strategies and repertoire. With the permission of the advisor, a student may register continuously for the above number. Special fee: \$35.

A\&H G 4355-A\&H G 4356. K eyboard musicianship for instrumentalists and vocalists ( N oncredit or 2)
Faculty. The development of basic skills in sight-reading, transposing, improvising, and melody harmonization in traditional and contemporary idioms. Focus on professional needs of music educators.

A\&H G 4357-A\&H G 4358. Ensemble performance: music For music majors only. For instrumental and vocal majors, a course designed for performance by chamber ensembles. Repertoire determined by registration. Public concert performances each semester.

## A\&H G 4357. Instrumental

(N oncredit or 1)
A\&H G 4358. Vocal (N oncredit or 1)

A\&H G 5052. Vocal literature and interpretation (N oncredit or 3)

Faculty. For students of singing, accompanying, and coaching. Offers performing and teaching command of representative literature, techniques of interpretation and presentation; German, Italian, and French diction for singers. Course may be repeated. M aterials fee: \$40.

A\&H G 5058-A \&H G 6058.

## Recital

For music majors only. Co-requisite: simultaneous registration for applied music instruction. The student will mount a recital by securing a date, designing programs and flyers, advertising, arranging for personnel, rehearsing, and finally performing. If $s / \mathrm{he}$ chooses to perform in a group with classmates, then s/he should register for 0 points. If the student wishes to give a full, solo recital, then $s / h e$ has the option of registering for 1 point to receive additional coaching from the applied music instructor.

A\&H G 5058. Recital I (0-1) Open only to music education program majors at the M.A. level.
A\&H G 6058. Recital II (0-1) Open only to music education program majors at either the Ed.M. or Ed.D. level.

A\&HG 5150-A\&HG 5171.
Instrumental music instruction
II (N oncredit or 2)
Faculty. W ritten permission from the M usic Education Program, R oom 520A H orace M ann, required. For intermediate and advanced music majors only. W ith permission of advisor, students may register continuously for the above number. Special fee: $\$ 35$.
A\&HG 5150. Violin
A\&HG 5151. Trumpet
A\&HG 5152. Harp
A\&H G 5153. Cello
A\&HG 5154. Viola
A\&HG 5155. String bass
A\&H G 5156. Percussion
A\&H G 5157. French horn
A\&HG 5158. Trombone, Baritone
A\&H G 5159. Tuba
A\&H G 5160. Oboe
A\&HG 5161. Saxophone
A\&H G 5162. Flute
A\&H G 5163. Clarinet
A\&HG 5164. Bassoon
A\&HG 5165. Recorder
A\&H G 5166. Guitar
A\&H G 5167. Synthesizer
A\&H G 5168. Strings
A\&HG 5169. Woodwinds
A\&HG 5170. Brass
A\&HG 5171. Renaissance Instruments

## A \&H G 5350. Piano instruction

 for music majors (N oncredit or 2) Faculty. W ritten permission from the M usic Education Program, R oom 520A H orace M ann, required. Individual instruction includes repertory, technical and musical problems, performing experience, and intensive understanding of teaching strategies. With the permission of the advisor, students may register continuously for the above number. Spe cial fee: \$35.
## A\&H G 5351. H arpsichord

instruction II (N oncredit or 2) Dr. Earle. For music majors only. W ritten permission from the Music Education Program, R oom 520A H orace M ann, required. Advanced harpsichord instruction: emphasis on elements of style and special techniques of performance of early keyboard music. Discussion of teaching material from beginning to advanced repertory. W ith permission of the advisor, a student may register continuously for the above number. Special fee: $\$ 35$.

A\&H G 5352. Voice instruction for music majors ( N oncredit or 2) Faculty. For music majors only. W ritten permission from the M usic Education Program, R oom 520A H orace M ann, required. Advanced individual voice instruction includes repertory, technical, and musical problems, performing expe rience, and intensi ve understanding of teaching strategies. With the permission of the advisor, a student may register continuously for the above number. Special fec: $\$ 35$.

## A \&H G 5353. Organ instruction

for music majors (N oncredit or 2) Dr. Schuder. Written permission from the M usic Education Program, R oom 520A H orace M ann required. For experienced organists and music majors. Individual instruction on technical problems, repertory and performance practice. W ith the permission of the advisor, a student may register continuously for the above number. Special fee: $\$ 35$.

A\&H G 5355. Art and technique of keyboard accompaniment (2-3)
Faculty. For music majors and music education majors whose main performing medium is piano. Provides practical experience with the varieties of music the accompanist needs to know and attention to accompanying skills.

Fieldw ork, Internships and Research/Independent Study

Permission required.
A\&H G 4201. Fieldwork in music education (1-4)
For music majors only. Professional activities in the field under the supervision of a member of the music education program faculty.

A\&HG 4901. Research and independent study in music education (1-4)
For music majors only. Research and independent study under the direction of a member of the music education program faculty.

A\&H G 5201. Fieldwork in music education (1-4)
For music majors only. Professional activities in the field under the supervision of a member of the music education program faculty.

A\&H G 5901. Research and independent study in music education (1-4)
For music majors only. Research and independent study under the direction of a member of the music education program faculty.

A\&H G 6201, Section 001. Fieldwork in music education (1-4) For music majors only. Professional activities in the field under the supervision of a member of the music education program faculty.

A\&H G 6201. Section 002. Fieldwork in music education: early childhood music (1-4)
Professor Custodero. Permission required. For music majors only. Professional activities in the field under the supervision of a member of the music education program faculty.

A\&H G 6421. Internship in the supervision and administration of music education (1-4) Professor A beles. For music majors only. Qualified students work as interns with supervisors or administrators in selected sites. Satisfies the internship requirement for administrative and supervisory certification. Provision is made for assessment of field-based competencies in fulfillment of program requirements.

## A\&H G 6481. Internship in the

 teaching of college music (3) Dr. Glaser. Guided experiences in the teaching of music in departments of metropolitan-area colleges.
## A\&H G 6501. Doctoral seminar

 in music education (1-3)For music majors only. Music doctoral candidates will identify their area of research interest and narrow their dissertation topic.

## A\&H G 6901. Advanced study (1-4)

Permission required. For music majors only. Research and inde pendent study under the direction of a member of the music education program faculty.

> A\&HG 6901 001. Advanced study in music education

A\&H G 6901 002. Advanced study in composition
Prerequisites: A\&H G 5032 and A\&H G 5033 or equivalent

A\&H G 6901 003. Advanced study in conducting
Prerequisites: A\&H G 4050 and A\&H G 5050.

A\&H G 6901 004. Advanced study in early childhood music
Prerequisites: A\&H G 4021
A\&H G 6901 005. Advanced study in jazz
Prerequisites: A\&H G 4059 and A\&H G 4060.

A\&H G 6901 006. Advanced study in music analysis
Prerequisites: A\&H G 5032 and A\&H G 5033 or equivalent

A\&H G 6901 007. Advanced study in music technology
Prerequisites: A\&H G 4029 and
A\&H G 5029 or equivalent
A\&H G 6901 008. Advanced study in repertoire

A\&H G 6901 009. Advanced study in applied music pedagogy

A\&H G 6901 010. Advanced study in harpsichord pedagogy

A\&H G 6901 011. Advanced study in organ pedagogy

A\&H G 6901012 . Advanced study in piano pedagogy

A\&H G 6901 013. Advanced study in voice pedagogy

A\&H G 6971. Research and independent study in music education (1-4)
Permission required. Research and independent study under the direction of a faculty member in music education.

A\&H G 7501. Dissertation seminar in music education (1-3) For music majors only. A required group tutorial for music doctoral students to help develop or refine topics of inquiry for research. The teaching format is flexible and may include faculty/student presenta
tions, group discussions and critiques. Preparation and presentation of dissertation proposal for approval. M ay be repeated.

## A\&H G 8900. Dissertation advisement in music education <br> (0) Section: 01. <br> Permission required. Individual advisement on doctoral dissertations for music maj ors only. Fee: to equal 3 points at current tuition rate for each term. For requirements, see section in catalog on Continuous Registration for Ed.D. degree.

## See also:

A \& H G 4048. Creative computing applications in education and the arts (3)
A \& H G 4079. Exploring America's cultures: implications for arts education (N oncredit or 2-3) A\&H G 5002. A ssessment strategies for the arts (N oncredit or 3 ) A\&H G 5082. Philosophies of art in education (2-3)
A\&H G 5181. The arts in education (2-3)
A\&HG 6021. Supervision and administration in arts education (3)

A\&H 5500. Pro-seminar in arts and humanities (2)
Concentration on the ethics of social research, examining special problems that arise in both quantitative and qual itative research.

## Humanities

Applied Linguistics
History and Education
Philosophy and Education
Religion and Education
Social Studies
Teaching of English and
English Education
Teaching of English to Speak-
ers of Other Languages
(TESOL)
Teaching of Spanish

## Applied Linguistics

(Code: TLA)
Program Coordinator: Professor Leslie M. Beebe

## D egrees offered:

M aster of Arts (M.A.)
M aster of Education (Ed.M.)
Doctor of Education (Ed.D.)

For update information on the A pplied Linguistics Program, consult the TESOL web page at: http://www.tc.columbia.edu/ academic/appliedlinguistics.

## Special Application <br> Requirements/Information:

All non-native speakers of English, including those who have an undergraduate degree from a university in the U nited States, must submit either:

- a minimum score of 5 on the Test of W ritten English (TW E) in additional to the college-wide requirement of a minimum score of 600 on the TOEFL or a computerbased score of 250 or
- a score of B or better on the Cambridge Certificate of Proficiency in English (CPE) or
- a score of 7.0 or better on the Cambridge International English Language Testing System (IELTS)
- successfully complete level 10 , including the essay portion, of the English Placement Test (EPT) administered by the Columbia University A merican Language Program.

All non-native speakers of English must al so submit either a Test of Spoken English (TSE) score of 50 or a SPEAK score of 50.

Students are expected to write and speak in a way that is appropriate to their professional responsi bilities. Students having difficulty in achieving these standards will berequired to take additional course work.

Applications will bereviewed in the Fall and the Spring only and should be submitted for the priority deadlines.

Ed.M./Ed.D. applicants must have a degree in A pplied Linguistics, TESOL, or related field; a writing sample is required.

Ed.M. applicants may transfer up to 30 credit points into the TESOL program from previous graduate study at an accredited institution. Applicants who have already earned an M.A. from Teachers College may transfer an additional 15 points from an outside institution. Ed.D. students may transfer up to 45 credit points from previous graduate study at an accredited institution. All transfer of credit points must meet the approval of a faculty advisor.

## Program D escription:

The program in A pplied Linguistics will provide students with a solid foundation for defining and resolving questions rel ated to the nature of language, how it is used in educational and naturalistic contexts, how it is taught, learned and eval uated. The program emphasizes study in the following:

- Syntax
- Phonetics/phonology
- Semantics
- Discourse
- Cross-cultural pragmatics
- Sociolinguistics
- Second language acquisition
- Second language literacy
- First language acquisition
- Interl anguage analysis
- Language pedagogy
- Testing and assessment
- Research
- Technology in applied linguistics


## D egree Requirements:

## M aster of Arts

The A pplied Linguistics Program offers a 36 -credit $M$ aster of A rts degree. Students will take a wide range of courses offered in A pplied Linguistics and related areas, such as TESOL, that will provide breadth to their program.

Courses in A pplied Linguistics (or TESOL) (24-25):

- A\&H L 4085, Pedagogical English grammar (3)
- A\&H L 4101, Phonetics and phonology (3)
- One other elective in linguis tic anal ysis (3)
- Second language acquisition (3)
- A\&H L 4001, Sociol inguistics and education (3)
- A \& H L 4104, Discourse analysis (3)
- A\&H L 4088, Second Ianguage assessment (3)
- Teaching practicum along with an elective (3)

Required courses out of program (3 courses of at I east two points each: 6 points minimum) chosen with advisor's approval.

Elective courses in A pplied Linguistics (or TESOL) (3-4)

In addition, students must complete a master's project written on a theme or research topic arising from their courserelated interests and subject to approval by their advisor.

## Master of Education

The Applied Linguistics Program offers an Ed.M. that requires 60 points beyond the Bachelor's degree. The program involves in-depth study in one or more of the language-rel ated areas. The Ed.M. may serve as continued professional development or as groundwork for future doctoral studies in Applied Linguistics.

Students who did not receive their M.A. from Teachers College will be expected to have completed all the required courses from the M.A. in Applied Linguistics above.

Required Courses in A pplied Linguistics (or TESOL) (9):

- A\&H L 5085, Advanced syntax (3)
- A\&HL 5575, Critical review of readings in Applied Linguistics and TESOL (3)
- A\&H L 6587, Seminar in second language acquisition: Cross-cultural pragmatics (3)

Electives in A pplied Linguistics (or
TESOL) (3 from the following):

- A\&H L 4003, Schools of linguistics
- A\&H L 4008, Interlanguage analysis
- A\&H L 4014, Gender, Ianguage \& education
- A\&H L 4005, Semantic systems and the lexicon
- A\&H L 5515, Advanced topics in applied linguistics I
- A\&H L 5516, Advanced topics in applied linguistics II
- A\&H L 4080, Teaching in linguistically diverse classrooms
- A\&HL 5581, Psycholinguistic dimensions of SLA
- A\&HL 5582, Sociolinguistic dimensions of SLA
- A\&HL 5583, The social psychology of SLA
- A\&H L 5586, Interlanguage phonology
- A\&H L 5587, Interlanguage syntax
- A\&H L 5588, Trends in SLA Research
- A\&H L 5589, Language transfer in SLA
- Second language literacy

Required courses out of program ( 3 Teachers C oll lege courses of at least two points each, 6 points minimum):

Choose one from the following courses in statistics, measurement or research design:

- Introduction to measurement
- Basic concepts in statistics
- M ethods of empirical research
- Qualitative research methods for educators

C hoose the other two in
consultation with an advisor.

In addition, students must complete an Ed.M. project written on a research topic arising from their course-related interests and subject to approval by their advisor.

## Doctor of Education

The A pplied Linguistics Program offers an Ed.D. requiring 90 points beyond the B.A. for students wishing to pursue empirical research in linguistic analysis, discourse analysis, sociolinguistics, cross-cultural pragmatics, language acquisition, language pedagogy and language assessment.

Students who did not receive their M.A. or Ed.M. from Teachers College will be expected to have completed all the required courses from these programs.

D octoral students have three types of requirements: concentration requirements, research methods requirements, and doctoral preparation requirements.

Concentration Requirements: Students are required to take content courses in their concentration. The exact courses should be decided in consultation with their advisor.

Research Requirements (15 points) To ensure that students have the skills to do scholarly research in an area of concentration, they are required to take a minimum of 15 points in research methods, statistics and measurement. Depending on the type of dissertation, they may be asked to take additional courses in linguistic analysis, qual itative methods, or quantitative methods.

Required Courses:

- HUDM 5021, M ethods of empirical research (3)

One of the following:

- M STF 5000, M ethods of inquiry: Ethnography \& participant observation (3)
- M STF 5001, Ethnography \& participant observation: Structural \& interpretative analysis (3)
- C\&T 5502, Introduction to qualitative research in curriculum \& teaching (2-3)
- M STF 5059, Qualitative research methods for educators (3)
- HUDM 4120, Basic concepts in statistics (3)
- HUDM 4122, Probability and statistical inference (3)

Other courses in consultation with an advi sor

D octoral Preparation Requirements: Students must pass a doctoral research paper, a certification exam and a certification paper. They must also write a dissertation prospectus and a doctoral dissertation as evidence that they are able to carry out original research under the guidance of their doctoral committee.

To prepare for these requirements, students will need to takethe following seminars:

- A\&H L 5501, Research paper: applied linguistics (1-3) OR
- A\&H L 5507, Research paper: applied linguistics/TESOL/ SLA (1-3)
- A\&HL 6501, D octoral seminar: applied linguistics (1-3) OR
- A\&H L 6507, Doctoral seminar: applied linguistics/ TESOL/SLA (1-3)
- A\&HL 7501, Dissertation seminar: applied linguistics (1-2) OR
- A\&HL 7507, Dissertation seminar: applied linguistics/TESOL/SLA (1-2)
- A\&H L 8901, Dissertation advisement in language and literature (0) OR
- A\&HL 8907, Dissertation advisement in applied linguistics/TESOL/SLA (0)

C andidates should be in touch with the Office of D octoral Studies to be certain of complying with the latest procedures, deadlines and documents.

Courses: (* = course open to non-majors)

## General

*A \&H L 4000. The study of language (3)
Faculty. Survey of cognitive and social approaches to the study of language, language acquisition, language systems, 20th century movements in linguistics, Ianguage varieties and attitudes, forms and functions of language in the classroom.

## *A \& H L 4001. Sociolinguistics and education (3)

Professor Beebe. Language variation based on social class, race, ethnicity, age, and gender; cross-cultural pragmatics, interactional sociol inguistics, conversation anal ysis, language planning, and W orld Englishes. Pedagogical implications. M aterials fee: \$15.

A\&H L 4003. Schools of linguistics (3)
Dr. Williams. A comparative examination of major approaches to linguistic analysis, specifically systemic and transformational, with particular reference to pedagogical applications. Special fee: \$10.

A\&H L 4005. Semantic systems and the lexicon (3)
Dr. H orowitz. A comparative examination of the semantic systems of English and other Ianguages, with particular reference to the teaching and learning of vocabulary. Special fee: $\$ 10$.

## A\&H L 4008. Interlanguage analysis (3)

Professor H an. Prerequisite: A\&HL 4087. A nalysis of the processes of rule formation in second language acquisition, with focus on the classification and interpretation of learners' errors. Special fee: $\$ 10$.
*A\&HL 4014. Gender, language and education (3)
Dr. Deakins. An exploration of gender-based differences in both
the structure and use of the English language. (Summers only)

## A\&HL 4085. Pedagogical Eng-

 lish grammar (3)Faculty. A systematic, in-depth examination of English grammar with particular reference to the teaching and learning of grammar.

A\&H L 4087. Introduction to second language acquisition (3) Professor H an. Prerequisite: A\&HL 4085. Survey of models and basic principles of second language acquisition and examination of how language acquisition research can inform language teaching, learning and policy. Offered in fall and spring only. Special fee: $\$ 20$.

## A\&HL 4101. Phonetics and

 phonology (3)Dr. Williams. A comparative examination of the sound system and orthographic system of English and other languages, with particular reference to problems of learning and teaching. Lab fee: $\$ 25$.

A\&HL 4104. D iscourse analysis (3)

Dr. Williams or Professor Purpura. Diverse approaches to anal yzing discourse: pragmatics, conversation analysis, interactional sociolinguistics, cohesion/coherence with reference to native and nonnative language acquisition and teaching. M aterials fee: $\$ 15$.

## A\&HL 5085. A dvanced syntax

 (3)Dr. Williams. Prerequisite: A\&H L 4085. Survey of generative syntax. M aterials fee: \$10.

## A\&HL 5152. A cademic writing

 I (3)Faculty. Permission required. An introduction to the theory and teaching of various genres of academic writing for native and nonnative writers. Teachers are given opportunities to devel op their academic writing skills.

## A \& H L 5153. A cademic writing II (3)

Faculty. Permission required. An advanced course in the theory and teaching of expository writing. Students will work systematically on a major writing project.

A\&HL 5519. Instructed second language acquisition and assessment
Professor Purpura. Prerequisite: A\&HL 4088. Examines how teach ing, learning and assessment of grammar have been conceptualized, researched and explained in recent decades. Explores differing conceptual izations of language ability as a basis for teaching grammar under different conditions and as a basis for measuring and explaining grammatical acquisition. Special fee: \$15

A\&HL 6087. Advanced second language acquisition (3)
Professor Han. Examines theoretical and empirical issues in SLA research. Reading and discussion of selected state-of-the-art articles that address, critically and substantively, topics that are of fundamental interest to SLA researchers.

## Research Seminars

A\&HL 5512. Research perspectives in language testing Professor Purpura. Prerequisite A\&HL 4088 or by permission. Examines the major issues and debates in language testing research since the 1960s. Explores controversies rel ated to the nature of language ability, test authenticity, test score general izability, performance assessment, and test validation. Discussion of problems and future directions of language testing. Special fee: \$10

A\&HL 5515. Advanced topics in applied linguistics I (3)
Faculty. Permission required. Research in such areas as sociolinguistics, second language acquisition, assessment and literacy skills. M aterials fee: \$20.

A\&HL 5516. Advanced topics in applied linguistics II (3)
Faculty. Permission required. Research in various methods of discourse anal ysis of talk or text in selected formal and informal contexts. M aterials fee: \$20.

A\&HL 5575. Research Literacy in applied linguistics and TESOL (3)
Professor Beebe. Introduction to research literacy for applied linguists, ESL/EFL teachers and second
language acquisition researchers with critical reading of professional journals and classic works in the fields of applied linguistics and English language teaching.

A\&HL 5581-A\&HL 5589. Topics in second language acquisition ( N oncredit or 1-3 each course) Faculty. Prerequisite: A\&H L 4087 or permission of instructor. An indepth examination of various perspectives on second-language acquisition. M aterials fee: \$5 each course.

- A\&HL 5581. Psycholinguistic dimensions of SLA
- A\&HL 5582. Sociolinguistic dimensions of SLA
- A\&HL 5583. The social psychology of SLA
- A\&HL 5585. Discourse analysis and SLA
- A\&HL 5586. Interlanguage phonology
- A\&HL 5587. Interlanguage syntax
- A\&HL 5588. Trends in SLA research
- A\&HL 5589. Language transfer in SLA

A\&HL 6587. Seminar in second language acquisition: crosscultural pragmatics (3)
Professor Beebe. Permission required. Prerequisite: A\&H L 4087 or permission of instructor. An in-depth anal ysis of research on second language acquisition, focusing on cross-cultural pragmatics, pragmatic development, interlanguage pragmatics, stylistic variation, and language transfer. Offered in Fall only. Special fee: \$10.

## Doctoral preparation

Doctoral preparation involves three successi ve stages;

1. Exposure to basic research methods,
2. Identification of dissertation topic,
3. Presentation of a prospectus, In order to encourage doctoral students to progress through these stages, a sequence of seminars is customarily offered. Progress through these stages usually involves enrollment in the following sequence of seminars:

- A\&HL 5501. Research paper in applied linguistics (1-3)
- A\&HL 5507. Research paper in applied linguistics/TESOL (1-3)
- A\&HL 6501. D octoral seminar in applied linguistics (1-3)
- A\&H L 6507. D octoral seminar in applied linguistics/ TESOL (1-3)
- A\&HL 7501. Dissertation seminar in applied linguistics (1-2)
- A\&HL 7507. Dissertation seminar in applied linguistics/TESOL (1-2)
- A\&HL 8901. Dissertation advisement in applied linguistics (0)
- A\&H L 8907. Dissertation advisement in applied linguistics/TESOL (0)

These seminars are ordinarily undertaken as soon as possible after completing the M.A. degree. Consult advisor as to which course or courses to enroll in during any particular semester.

Independent Research, Fieldw ork and Internships

- A\&H L 4901. Research and independent study in applied linguistics (1-6);
- A\&HL 4907. Research and independent study in applied linguistics/T ESOL (1-6) Permission required. To betaken under the direction of a faculty member. Students work individually or with others.
- A\&HL 5201. Fieldwork in applied linguistics (1-6);
- A\&HL 5207. Fieldwork in applied linguistics/TESOL (1-6)
Permission required. Opportunity for qual ified students, individually or in small groups, to develop and pursue projects, in consultation with an advisor, in schools, communities, and other field settings.
- A\&HL 6201. Advanced fieldwork in applied linguistics (1-6);
- A\&H L 6207. Advanced fieldwork in applied linguistics/ TESOL (1-6)
Permission required. See description for A\&HL 5201/A \&H L 5207.


## History and Education (Code: TFH)

Program Coordinator: Professor Cally W aite

## D egrees offered:

M aster of Arts (M.A.)
M aster of Education (Ed.M.)
Doctor of Education (Ed.D.)
Doctor of Phil osophy (Ph.D.)

## Special Application Requirements/I nformation:

Educational Policy option available. Sample of historical writing required for Ed.M., Ed.D., Ph.D. Students cannot begin in the summer.

## Program D escription:

The Program in History and Education is one of the oldest at Teachers College, the history of education having been one of the first components of the university study of education. M any of the earliest doctoral dissertations at Teachers College dealt with historical subjects, even in the case of students aspiring to careers in curriculum, guidance, and administration.

The program prepares people to teach in graduate schools of education, undergraduate departments of education, departments of history, theological seminaries, or other academic institutions, and to work as research schol ars in institutes, government bureaus, or social service agencies where a deep understanding of education in historical perspective is essential.

The program addresses important educational questions, first, by examining the ideas, individuals, and institutions of the past to determine their influence on their own times; and, second, by bringing historical knowledge and perspective to bear on current educational issues. The program offers courses covering the educational history of America,
women, Europe and other international communities, urban areas, immigrants and African Americans.

The program is open to students of broad and diverse backgrounds who can give evidence of academic competence and personal qual ities suggesting high probability of professional success. Each student in the program is expected to take courses in the history of educa tion, as well as in the more generalized fields of social, political, and cultural history. Students can al so take subject matter courses in cognate areas aimed at complementing and supporting their specialized areas of interest within the history of education. In addition, most students engage in continuous independent research under the supervision of a faculty member.

Students in the program are encouraged, with their advisor's guidance, to make full use of resources offered by other programs at Teachers College, Columbia University, theJ ewish Theological Seminary, and Union Theological Seminary.

## D egree Requirements:

All courses should be determined with the advice and approval of the student's advisor.

## Master of Arts

The M aster of Arts offers two approaches: 1) 30 points and a formal master's thesis, or 2) 32 points and a special project. Topics and preparation of the thesis or the special project are to be determined in consulta tion with the student's advi sor. At least 12 of the points taken for the degree must be in the field of history and education. At least three Teachers College courses must betaken outside of the program in History and Education.

## M aster of Education

The M aster of Education requires 60 points, at least 30 of which must be completed under the auspices of Teachers College. Students must take at least 30 points in history and education and at least three Teachers College courses outside the program.

## Doctor of Education

The Doctor of Education requires 90 points with emphasis on broad preparation for a variety of teaching, research and administrative responsibilities informed by an understanding of historical development and context.

## Doctor of Philosophy

The Doctor of Philosophy requires 75 points, including demonstrated proficiency in two foreign languages. Program emphasis on historical research in education. C andidates should be in touch with the Office of $D O-$ toral Studies to be certain of complying with the latest procedures, deadlines and documents.

Courses: (*= course open to non-majors)

## Introductory

*A \&HF 4070. History of education in the U nited States (3) Professor W aite. The devel opment of American education in the context of American social and intellectual history.
*A \&HF 4075 Visions of teachers and teaching (3)
Professor W aite. A critical examination of popular representations of teachers in the 20th century.
*A\&H F 4076. History of urban education (3)
Professor Franklin. Examines educational activities within urban communities including schooling and the educational activities of social, political and cultural groups from the eighteenth century to the present.
*A\&H F 4078. Technology and education in Western history (3) Professor McClintock. An historical inquiry into the educational implications of technol ogical change, particularly as it has affected cultural values and the capacities to organize action and to communicate ideas. Special fee: $\$ 30$.
*A\&HF 4171-4172 Religion and education in American culture (2-3)
Dr. K uentzel. The educational role of religious ideas, institutions, and movements in American culture.

A\&H F 4171. 18th and 19th
centuries
A\&H F 4172. 20th century

## Intermediate

*A \&H F 5070. History and theory of higher education (3) Faculty. Fundamental ideas that have shaped liberal education in the United States and basic issues that arise in the formulation of purposes, policies, and educational programs in colleges and universities.
*A\&HF 5072 Student activism and student movements in historical perspective (3)
A critical examination of the changes and continuities in student life from the Colonial Era to the present, with special emphasis on the causes and consequences of protests and movements.

## *A\&HF 5075. K nowledge and human values (2-3)

Dr. K uentzel. Historical and philosophical perspectives on conceptions of knowing, modes of consciousness, and educational aims in 19th and 20th century American thought.
*A \&HF 5800 History of gender and education (3)
Faculty. Historical perspectives on the role and place of gender in education.
*A\&H F 5900 History of A frican American education (3) Professor Waite. An exploration of informal and formal education from slavery to the present.
*A\&H F 6041. Historical method (3)

Professor W aite. Permission required. Methods, principles, and problems of historical research and interpretation. Designed for students throughout the College undertaking systematic inquires on historical topics.

## A\&H F 6042. Theories of history (3)

Faculty. Permission required. The ories of historical knowledge and the historical process.
*A\&H F 6577. Topics in the history of American educational thought (3)
Faculty. Permission required. Prerequisite: A\&H F 4070 or equivalent. Considers the origins of A merican education including international perspectives.

## Advanced

A\&HF 5670. Colloquium in history and education (1-3) Professor Waite. For majors only. Discussion of research and teaching topics in history and education, presentation of dissertation proposals and drafts, explorations of the employment prospects of specialists in history and education.

A \& H F 6574-A \& H F 6575. Seminar in the history of A merican education (3)
Faculty. Permission required.

## Individualized Studies

A\&HF 4901. Research and Independent Study (1-8) Permission required.

A \&HF 6200. Field research outside the U nited States ( 0 )
Faculty. Permission required. Required of doctoral students when choice of doctoral research necessitates data generation in other countries. One year of field experience under supervision in approved geographical and institu-
tional site. Students secure approval of department chair and principal advisor in advance, and render periodic reports.

A \& H F 7500. Dissertation seminar in philosophy and the social sciences (0-3)
Permission required. Required of doctoral students in the semester following successful completion of certification examinations.

A\&H F 8900. Dissertation advisement in philosophy and the social sciences ( 0 )
Individual advisement on doctoral dissertations. Fee: to equal 3 points at current tuition rate for each term. For requirements, see section in catal og on Continuous Registration for Ed.D./Ph.D. degrees.

A\&HF 6970. Studies in history and education (1-6)
Faculty. Advanced students may register for intensive individual study of some aspect of their specialization. Registration is only by permission of the professor under whose guidance the work will be undertaken. Times for individual conferences will be arranged.
Enrollment may be for 1 or more points each term, and registration is not limited to one or two terms.

## Se also:

- A\&H F 4603. Human and social dimensions of peace (1-2)
- A\&H F 4611-A \&H F 4614. Education for peace, disarmament, and the control of nuclear weapon
- A\&H F 4611. Security issues in the nuclear age (1-3)
- A\&H F 4613. Fundamental concepts of peace education (1-2)
- A \&H F 4614. The U nited $N$ ations as peace educator (2-3)
- A\&H L 4042. The History of A merican social thought (3)


## Philosophy and

## Education

(Code: TFP)
Program Coordinator: Professor
David Torrey H ansen

## D egrees offered:

M aster of Arts (M.A.)
M aster of Education (Ed.M.) Doctor of Education (Ed.D.) Doctor of Philosophy (Ph.D.), (Educational Policy option available)

## Spedial Application

Requi rements/I nformation:
Background in philosophy required for Ed.M. and Ed.D. Undergraduate major in philosophy required for the Ph.D. Sample of philosophical writing required for all programs except the M.A.

## Program D escription:

This program has shaped the historical course of philosophy of education in A merica. From the groundbreaking work of John Dewey and William H eard K ilpatrick to the achievements of their most recent successors, J onas Soltis and $M$ axine Greene, the program's philosopher- scholars have been leaders in the field. The Philosophy and Education program offers students a unique opportunity to develop their humanistic and critical thinking about education.

Faculty and students in the program devote this thinking to a wide variety of questions, including:

- W hat visions of the human being animate contemporary schooling?
- H ow can education be a force for social reform?
- W hat is the rol e of aesthetic experience and the imagination in education?
- What type of education befits a multicultural society?
- W hat is the nature of the teacher-student relationship?

Other areas of interest include:

- The education of democratic citizens
- Moral education
- Critical thinking
- Education and the new technology
- The ethics of teaching

The philosophy and education program provides an opportunity for educators to broaden and deepen their understanding of the processes and aims of education through inquiry into the the fields of aesthetics, ethics and moral philosophy, social and political philosophy, and epistemology and the philosophy of science. Study of a variety of historical and conceptual frameworks enables students to devel op theoretical perspectives on education, and to effectively anal yze and critique arguments in contemporary educational debates.

Recent dissertations have included discussions of the nature of the multicultural self, the role of the liberal arts in teacher education, and communi cative ethics as a foundation for literacy education.

## D egree requirements:

## Master's Programs

The $M$ aster of $A$ rts and $M$ aster of Education programs are designed to introduce educators and professionals with a wide variety of interests to the study of philosophy and education. In addition to major courses in philosophy and education, students may use their electives to devel op an area of educational interest (e.g., educational policy, curriculum and teaching, developmental psychology, etc.) and to develop an area of philosophical interest (e.g., ethics, social philosophy, epistemology, etc.).

## Doctoral Programs

The doctoral programs in philosophy and education are flexible and responsive to individual student backgrounds and needs. Each student takes responsibility, in consultation with his or her adviser, for designing a course of study that will meet the program requirements while catering to the individual 's interests and professional goals.

At the center of that course of study are the program's research and professional development sequence (see A \&HF 5680) and other classes in philosophy and education. In addition to these major courses, students are al so required to do coursework in the following areas: philosophy (via the consortium, students may takes courses not only in the Columbia Phil osophy Department, but in those of CUN Y, Fordham, The N ew School, and NYU.), foundations of education, and educational breadth. These requirements are modest, leaving room for students to craft a personalized course of study.

Exact requirements vary for each doctoral program. For example, students in the Ed.D. program will also develop a minor in an educational field such as educational policy, curriculum theory, or comparative education. For a more detailed description of the doctoral programs, visit the program's website. Candidates should also contact the Office of D octoral Studies about University and College-wide requirements, procedures, and deadlines for doctoral students.

Courses: (* = course open to non-majors)
*A\&H F 4081. Philosophies of education (3)
Professor Higgins. An introduction to philosophies of education from Plato to Dewey.
*A\&HF 4084. Social philosophy and education (3)
Faculty. M ajor concepts in social philosophy and their application to educational issues.

## *A\&H F 4085. The arts and

 American education (3)Professor Greene. A comparative study of responses by educators, literary artists, and painters to the American experience in the 19th and 20th centuries.

## *A\&HF 4086. A esthetics and education (3)

Professor Higgins. The relation of art and education, with attention to theories of the creative act, aesthetic experience, and the criteria governing criticism.
*A\&H F 4180. Education and the making of the modern self (3)
Professor H ansen. A critical study of modern philosophical and literary works on self-cultivation, and of their implications for education.

## *A\&HF 4181. Critical theory and education (3)

Faculty. An examination of key ideas and texts in the critical theory tradition of social philosophy, using them to illuminate humanistic issues in contemporary education.

## *A\&HF 4183. Philosophies of multiculturalism and pluralism

 (2-3)Professor Higgins. An examination of the major historical and current A merican views of the nature and value of multiculturalism and of cultural pluralism, in education and in society more generally. Some attention to criticisms of multiculturalism.

## *A \&H F 4680. Ethical issues in educational practice (3)

Faculty. A study of how modern ethical theories illuminate ethical predicaments in education.

A\&HF 5080. Advanced topics in social and moral education and philosophy (3)
Faculty. Close reading of important (mostly contemporary) philosophical texts on several topics relevant to education. Topics will vary and can include racism, cultural and moral relativism, morality, multiculturalism, and religion.

A\&H F 5082. The philosophy of John Dewey (3)
Faculty. An anal ysis of the principal works of John D ewey on education.
*A\&HF 5086. Changing styles: philosophy, art and literature (3) Professor Greene. An exploration of W estern traditions of thought and practice with relation to the general problems of contemporary culture and the emerging demands of "cultural literacy" in a fragmented society.

A\&H F 5680. Colloquium in philosophy and education (1-3) Professors Broughton and Higgins. For majors only. A dissertation seminar and treatment of topics related to the devel opment of competence in research and teaching philosophy of education.

## A\&HF 5681. Colloquium in existentialism and education (3)

Professor Greene Permission required. A study of selected writings in existentialism and their implications for education.
*A\&HF 6580. Seminar in philosophy and education (3)
Faculty. An advanced seminar. Permission required

## Individualized Studies

A\&H F 4901. Research and independent study (1-8)
Permission only.
A\&H F 7500. Dissertation seminar in philosophy and education (0-3)
Faculty. Permission required. Required of doctoral students in the semester following successful completion of certification examination.

## A\&H F 8900. Dissertation

 advisement in philosophy and education (0)Individual advisement on doctoral dissertations. Fee: to equal 3 points at current tuition rate for each term. For requirements, see section in catalog on Continuous Registration for Ed.D./Ph.D. degrees.

A\&H F 6980. Studies in philosophy and education (1-6)
Faculty. Advanced students may register for intensive individual study of some aspect of their specialization. Registration is only by permission of a faculty member, under whose guidance the work will be undertaken. Times for individual conferences will be arranged. Enrollment may be for 1 or more points each term, and registration is not limited to one or two terms.

## Cultural Studies

*A\&HF 4060. Youth cultures (2-3)
Professor Broughton. Issues in adol escent/early adult subculture formation. Effects on learning, school, college, employment. Alienation, resistance, creativity. Literary-aesthetic approaches to symbolic styles, fashions, movements, and cults. Multicultural/ class/gender differences. Special fee: \$45.

## *A\&H F 4061. Introduction to cultural studies (2-3)

Theory, method and research in the emerging field of cultural studies in education. M ass culture and school culture as learning environments interpreted from arts and humanities perspectives: structural ism/post-structural ism, semiotics, discourse and film anal ysis, psychol analysis, ideology-critique, identity politics, feminism, queer theory.
*A\&HF 4088. Popular culture Professor Broughton. Critical examination of mass communication as an informal medium of education: film, TV, comic books, music, dance, advertising. "Low" vs. "high" culture and hybrid forms. Enrollees Iearn to create and promote their own pop-cultural commodity. Special fee: $\$ 40$.

## *A\&HF 4089. Aesthetics of technology (2-3)

Professor Broughton. Technology as a cultural form regulating the development of the human self. M etaphysical, symbolic and fantasy components in computing, space travel, medicine, reproduction, and children's toys. Literary and artistic representations. Special fee: \$40.
*A\&H F 4130. Gender and violence (2-3)
Professor Broughton. How literal and symbolic violence shape gender formation. Aggression in the lives of men and women. Racism, homophobia, child-abuse, daterape, demonism, guns and bombs, in reality, art, and fiction. Special fee: \$40.

## *A\&H F 6065. Media and visual culture in formal and informal

 education (2-3)Dr. Ellsworth. The relationship of contemporary education to the new visual literacies. Critical responses to the new media and the dominance of screen/image in learning. Changes in teaching required for non-traditional technologies and settings.

## Religion and Education

 (Code: TFU)Program Coordinator: Dr. J ohn K uentzel
Program Advisors: Professor
M ary Boys, Union Theology
Seminary; Professor J oseph
Lukinsky, The J ewish Theological Seminary

## D egrees offered:

M aster of Arts (M.A.)
M aster of Education (Ed.M.)* Doctor of Education (Ed.D.)*

* The program is currently not accepting applications for this degree level. Please call the $O$ ffice of $A$ dmission at (212) 678-3710 for updated information.


## Special Application Requirements/I nformation:

 Students may not begin program in the summer.
## Program D escription:

For three quarters of a century Teachers College has offered advanced studies of various fields rel ated to religion and education. Today, the program in religion and education, leading to the M.A., Ed.M., and Ed.D. degrees, offers the opportunity for combining religious studies at Union Theological Seminary, theJ ewish

Theological Seminary of America, and the Columbia U niversity Graduate School of A rts and Sciences with studies in education at Teachers College.

M any students in the program, particularly at the doctoral level, transfer substantial credits in graduate or professional religious studies from other institutions and devote the major part of their effort in the program to acquiring the educational knowledge and skills needed to complement their previous theological study. Each student's program is worked out to meet his or her particular objectives, using the combined resources of Teachers College and the other institutions mentioned above.

The program prepares its graduates to teach in colleges, universities, and theological schools, with special concern for the religious dimensions in education. Such persons would al so be prepared to teach courses in religion or to serve with various religious organizations in positions of leadership in matters of educational policy.

For information about the joint Ed.D. program and the related M aster of Arts in Education and Theological Studies at Union Theological Seminary, consult the Seminary's catalog.

## D egree Requirements:

The program of courses in Religion and Education is worked out with one of the advisors from the three cooperating institutions. Drawing on these combined resources each student's program is designed to meet his or her own particular objectives. All courses should be determined with the advice and approval of the student's advisor.

## Master of Arts

The degree requirements can be met in one of two ways: 1) completing 30 points and a formal master's thesis, or, 2) completing 32 points and a special project. The topics and preparation of the thesis and the special project are to be determined in consultation with the student's advisor. At least 12 of the points taken for the degree must be in the field of religion and education, and at least three Teachers College courses must be taken outside the program.

## Doctor of Educ ation

The Doctor of Education is a 90 point program. All students must take a minimum of 6 points of A\&H F6581, Studies in Religion and Education. The full program of other courses is developed on an individual basis for each student in consultation with the advisors of the program.

In developing the full course program, every effort is made to ensure that students receive a solid grounding in the nature of religion (with courses in fields pertaining to literature of religion, history of religions, philosophy of religion and theology, social science and religion, and psychology of religion).

Students al so receive a solid grounding in the nature of education (with courses pertaining to history and education, philosophy and education, anthropology and sociology of education, international education, curriculum and teaching and adult education).

Other courses deemed important for the student's particular goals in the study of religion and education al so become part of the course program. Further detailed requirements for the Ed.D. are available from the Office of Doctoral Studies.

C andidates should be in touch with the Office of Doctoral Studies to be certain of complying with the latest procedures, deadlines and documents.

Courses: (* = course open to non-majors)
*A\&HF 4171-4172 Religion and education in American culture (2-3)
Dr. K uentzel. The educational role of religious ideas, institutions, and movements in American culture.

A\&H F 4171. 18th and 19th

## centuries

A\&H F 4172. 20th century
*A\&H F 5075. K nowledge and human values (2-3)
Dr. K euntzel. H istorical and philosophical perspective on conceptions of knowing, modes of consciousness, and educational aims in 19th and 20th century American thought

A\&H F 6581. Seminar: Studies in religion and education (1-3) Professors Boys and Lukinsky. Required for all Ed.D. candidates in religion and education at the J ewish Theological Seminary, Teachers College, and Union Theological Seminary. Introduces doctoral students to the history, issues, and research methods in the field of religion and education and provides a collegium for devel oping proposals for dissertations. Cross listed at Union Seminary as RE 505-506 and at Jewish Theol ogical Seminary as Ed. 9547.

## Individualized Studies

A\&H F 4901. Research and independent study (1-8)
Permission only.
A\&H F 7500. Dissertation seminar in religion (0-3)
Faculty. Permission required. Required of doctoral students in the semester following successful completion of certification examinations.

## A\&H F 8900. Dissertation

advisement in religion (0)
Individual advisement on doctoral dissertations. Fee: to equal 3 points at current tuition rate for each term. For requirements, see
section in catal og on Continuous Registration for Ed.D./Ph.D. degrees.

In each of the areas within the department, advanced students may register for intensive individual study of some aspect of their specialization. Registration is only by permission of theinstructor under whose guidance the work will be undertaken. Times for individual conferences will be arranged. Enrollment may be for 1 or more points each term, and registration is not limited to one or two terms.

A\&HF 6981. Studies in religion and education (1-6)

## See also:

- A\&HF 4603. Human and social dimensions of peace (1-2)
- A\&HF 4611-A\&H F 4614. Education for peace, disarmament, and the control of nuclear weapons
- A\&H F 4611. Security issues in the nuclear age (1-3)
- A\&H F 4614. The U nited N ations as peace educator (2-3)
- A\&H5500. Pro-seminar in arts and humanities (2)


## Social Studies

(Code: TLW )
Program Coordinator: Professor M argaret Smith Crocco

## D egrees offered:

M aster of Arts (M.A.)
M aster of Education (Ed.M.)
D octor of Education (Ed.D.)
D octor of Philosophy (Ph.D.)

## Special Application

 Requirements/I nformation: Standardized tests are not required for social studies programs. H owever, the GRE General Test is encouraged for those with undergraduate GPAs below 3.5. M.A. students can begin in the fall or summer only. Ed.M. students may begin in any term.Students should indicate on the special ization section of application whether they wish to
pursue teacher certification. A student in this program who wants to qualify for New York State teaching certification must complete the program and file for certification prior to February 1, 2004. Teachers College is devel oping new programs to meet regulations that go into effect after February 1, 2004. These programs will be outlined in next year's catal og.

Applicants to the M aster of Arts degree program must have taken at least 24 credits in history or appropriate social science course work. For those courses that are not listed under a history department, and which the applicant feels may be counted as part of the "history" requirement, applicants must submit course descriptions in order for the social studies faculty to determine the content. M.A. inquiries should be directed to Mr. Michael Marino, Social Studies Program Office, Box 80, (212) 678-3173. The program secretary for Social Studies can be reached at (212) 678-4083.

Applicants to the M aster of Education degree should be aware that the Program admits students after several years of teaching or after completion of an M.A. degree in Social Studies education or in an appropriate content field. Admission requirements in terms of undergraduate background are the same as the M.A.

An M.A. in appropriate content field or Social Studies education is required for applicants to the D octor of Education or Doctor of Philosophy degree programs. In addition to the general Teachers College admission requirements, doctoral applicants must submit a writing sample and recommendations written by persons qual ified to address the potential for doctoral-level work. If
the applicant will be in or near N ew York City, an interview is recommended.

Inquiries for the Ed.M., Ed.D. and the Ph.D. degrees should be directed to Professor M argaret Smith Crocco, Box 80, Teachers College; telephone: (212) 678-3174.

## Program D escription:

The Social Studies Program combines history and the social sciences for purposes of instruction. The program particularly emphasizes the historical development of the field, the selection and organization of subject matter, and anal ysis of instructional materials for students of diverse backgrounds in both urban and suburban school settings.

Social studies teachers must be schooled in subject matter, practiced in the arts of pedagogy, attuned to the needs of students, and alive to the interplay of theory and practice.

The program prepares students for professional positions in schools, colleges, universities, and allied institutions. Our faculty's strengths in history and social education are well suited to that purpose. These strengths, al ong with the full resources of Teachers College and Columbia's G raduate School of Arts and Sciences, are, of course, available to every student.

## D egree Requirements:

## M aster of Arts

The M aster of A rts offers the following two tracks:

## M aster of Arts in Social Studies

This program requires a minimum of 32 points and an integrative project. This degree program focuses on social studies teaching in middle and high schools, and is designed primar-
ily for in-service teachers. The 32 points should be distributed as follows:
$M$ ethods and $M$ aterials (6-9 points minimum)

- A\&H L 4036, The teaching of social studies (required)*
- A\&H L 5030, Diversity and the social studies curriculum
- A\&HL 5035, History of the social studies since 1880
- A\&H L 5037, Alternative models of social studies curriculum
- A\&HL 5530, Thehistory of American social thought
*Students who have taken an equival ent course should substitute A\&HL 5037.

Social Studies C ontent Courses (14-17 points)
In consultation with an advisor, students should select courses to round out their knowledge of the subject matters taught in secondary schools.

Professional Development Courses (6-9 points)
Three 2-3 point Teachers College courses outside the Social Studies Program, chosen with advisor approval.

## F urther Requirements

Students must complete an integrative project, selected with advisor approval.

## M aster of Arts in Social Studies with Teacher Certific ation

This program requires a minimum of 38 points and an integrative project and is designed for pre-service teachers. Successful completion of this program of study leads to the M.A. degree and recommendation for N ew York State teacher certification (grades $7-12$ ). Student teaching is undertaken in cooperating middle and high schools, both city and suburban. A committee of social studies faculty and cooperating professionals from
the school to which the student is assigned supervises and evaluates the student teacher's work. This program is registered by N ew York State.

Although it is possible to complete this program in one calendar year of four terms, the faculty strongly advise students to extend the program to include two full summers as well as one regular academic year of two terms.

The 38 points should be distributed as follows:

F oundations and $M$ ethods (9-12 points)
Applicants must have 2 or more points in history and/or appropriate social sciences.

- A\&H L 4036, The teaching of social studies (required)
- A\&H L 5030, Diversity and the social studies curriculum*
- A\&H L 5035, History of the social studies since 1880
- A\&H L 5037, Alternative models of social studies curriculum
- A\&HL 5530, The history of American social thought

Sodial Studies C ontent Courses (14-17 points)
Same as 32 point M.A. program. See above.

Student Teaching (10 points)

- A\&H L 4530, Seminar for student teachers in social studies*
- A\&HL 4730, Supervised student teaching in social studies**
*Students enroll for 2 points both in the fall and in the spring.
** Students enroll for 3 points in both the fall and the spring

Professional D evelopment Courses (6-9 points)
Same as 32 point M.A. program. See above.

Student teaching for non-Social Studies majors:
Students registered in programs at Teachers College other than the Social Studies program who wish to student teach must get written permission from the program coordinator by $M$ arch 1 prior to the fall term in which student teaching begins.

Students who want to teach in the Social Studies program must al so meet these additional requi rements: first take A \& H L 4036, The Teaching of Social Studies, and then, enroll for A\&H L 4530, the Seminar for student teachers in social studies and A\&H L 4730, Supervised student teaching in social studies during both the fall and spring terms.

F urther $R$ equirements
Students must complete an integrative project, satisfy the requirement for study of a language other than English, and register for and attend the teacher education lectures on detection of child and substance abuse.

## Master of Educ ation

The M aster of Education in Social Studies offers the following three tracks:

## Master of Education in Social Studies

This program requires a minimum of 60 points and an integrative project. The degree is intended for experienced educators; it is aimed at developing leaders in social studies education for settings such as middle and high schools, community colleges, curriculum agencies and publishing, and foundations and historical museums.

Emphasis is on specialized work in curriculum development and the subject matters, methods, and materials of
instruction. This degree program is al so suitable for students contemplating future doctoral study. The program is flexible in nature and can be tailored to the student's specific career goals.

Sodial Studies F oundations, M ehods, and Professional C ontent (30 points minimum) The courses in this area are intended to familiarize students with the historical development and current state of social studies and to provide experience in research on educational practices. Students should consult with an advisor to determine what additional research courses outside the program will be needed in their individual programs of study; these out-ofprogram courses may be used to satisfy points requirements in this area.

- A\&H L 5030, Diversity and the social studies curriculum
- A\&H L 5035, H istory of the social studies since 1880
- A\&HL 5037, Alternative models of social studies curriculum
- A\&HL 5203, Fieldwork in social studies**
- A\&HL 5223, Oral history as a multidisciplinary teaching tool
- A\&H L 5232, Fieldwork in social studies teacher training.
- A\&H L 5530, The history of A merican social thought
- A\&H L 5931, Guided investigations in the teaching of social studies**
- A\&H L 6530, Curriculum devel opment, research, and supervision**
**M ay betaken more than once
Social Studies C ontent Electives (15 points minimum)
Same as for M .A. See above.

Professional Development Courses (6-9 points minimum)
Same as for M.A. See above.
Further Requirements
The integrative project will develop out of the student's particular program of study. Students will register for A\&H L 6030, Research in social studies education, with an advisor to conceptualize and begin to prepare this project.

## The Master of Education in Social Studies with New York State Certification in

 Administration and SupervisionThis program requires a minimum of 60 points and an integrative project.

Social Studies F oundations, M ethods, and P rofessional Content (18 points minimum)
Except for A \&H L6530, same choices as Ed.M. above

Public School A dministration (12 points required)
Courses selected in consultation with an advisor.

Public School Supervision
(12 points required)
Required:

- C\&T 4051, Supervision for elementary and secondary schools
- A\&HL 6530, Curriculum development, research, and supervision

Suggetted:
Consult an advisor
Internship in supervision (4-6 points over two terms)

- C\&T6542, Internship program in supervision (in-service)

G uidance in development of inte grative project (3 points)

- A\&HL 6030, Research in social studies education

Electives (9-11 points) M ust include courses in both social studies content and professional devel opment. Chosen with advisor approval.

F urther requirements
Same as for Ed.M. above.

## The Master of Education in Social Studies and the Teaching of English to Speakers of other Languages (TESOL)

Please write the program secretary at Box 80 for more information.

## Doctor of Education

The Doctor of Education in Social Studies requires 90 points of graduate study and a dissertation. The Ed.D. degree program emphasizes broad preparation for advanced professional responsibilities in social studies.

Courses in the major fied
(15 points minimum)
Required:

- A\&H L 5031, Teacher education in social studies
- A\&H L 5035, History of the social studies since 1880
- A\&H L 5037, Alternative models of social studies curriculum
- A\&HL 5232, Fieldwork in social studies teacher training
- A\&HL 5530, The history of American social thought
- A\&HL 6500, Seminar in the history of the social studies
- A\&H L 6530, Curriculum devel opment, research, and supervision

R esearch courses, seminars and individualized work (15 points minimum)
Required:

- A\&H L 5503, Research paper in social studies
- A\&H L 6503, Doctoral seminar in social studies
- A\&HL 7503, Dissertation seminar in social studies

Broad and basic areas of professional scholarship (15 points minimum)
In consultation with an advisor, select at least one course in each of the following three areas: the nature of education, the nature of persons and the learning process, and, methods of eval uation and research. Other course work in this area should be tailored to the individual student's needs; consult an advisor.

Electives in the major field (15 points minimum) Soon after beginning this program, students should select an area of emphasis, either A merican history or modern history, broadly conceived. These courses should be selected for their applicability to the student's area of dissertation research. Course work in the area of emphasis normally includes both the subject matters themselves and the design and evaluation of educational programs in those subject matters.

F urther requirements
In addition to the dissertation, there are other requirements. Students should consult an advisor in the Program and read the Requirements for the D egree of D octor Education bulletin, obtainable from the Office of Doctoral Studies.

## Doctor of Philosophy

The D octor of Philosophy in Social Studies requires 75 points of graduate study and a dissertation. The Ph.D. program emphasizes research and intensive specialization in social studies scholarship.

Courses in the major fied d
(15 points minimum)

- A \& H L 5031, Teacher educa tion in social studies
- A\&H L 5035, H istory of the social studies since 1880
- A\&HL 5232, Fieldwork in social studies teacher training
- A\&H L 5530, The history of A merican social thought
- A\&H L 6500, Seminar in the history of the social studies
- A\&H L 6530, Curriculum devel opment, research, and supervision

Electives in the area of specialization (15 points minimum) Soon after beginning the Program, students must select an area of special ization. Students may select either American history or modern history. Students should select courses with an advisor, taking care to include courses rel evant to the area of dissertation research at both Teachers College and the Graduate School of Arts and Sciences

Research methods ( 15 points minimum)
Required:

- A\&H F 6041, H istorical method

Altogether students must complete a minimum of 15 points in research methods course work. The sequence of doctoral preparation seminars is the same as for the Ed.D.

N on-major foundations (15 points minimum) Same as "Broad and basic areas of professional scholarship" in Ed.D.

Further requirements
In addition to the dissertation, students must satisfy the foreign language requirements equival ent to those of the department of the Columbia University Graduate School of Arts and Sciences with which their work is most closely identified. For Ph.D. students in social studies, the usual cognate department in the Graduate School is H istory. Students should read the R equi rements for D octor of Philosophy obtainable from the Office of D octoral Studies at Teachers College.

Courses: (* = course open to
non-majors)

## Foundations and Methods

A\&H L 4036. The teaching of social studies (3)
Faculty. Basic classroom methods for teaching social studies in secondary schools; teaching resources and aids; assessment and testing. Special fee: \$10.

A\&H L 4530. Seminar for student teachers in social studies (2)

Faculty. M ust be taken concurrently with A \&H L 4730. Restricted to majors. Special fee: \$20.

A\&HL 4730. Supervised student teaching in social studies (3)
Professor Crocco and Faculty. Permission required. M ust be taken concurrently with A\&HL 4530. Restricted to majors. Special fee: $\$ 20$.

A\&H L 5030. Diversity and the social studies curriculum (3)
Professor Crocco and Faculty. Curriculum theory and instructional methods rel ated to teaching secondary school social studies in the diverse classroom. Particular attention paid to gender and multicultural issues in urban settings. Special fee: $\$ 10$.

A\&H L 5031. Teacher education in social studies (1-3) Professor Thornton. Permission required. Problems, issues, and new directions in college teaching of methods courses. Supervision of practice teaching and other professional programs.

A\&H L 5035. History of the social studies since 1880 (3)
Professor Thornton. An historical investigation of the development of the secondary school history/social studies curriculum, including questions related to objectives, content, and methods of instruction.

A\&H L 5037. Alternative models of social studies curriculum (3) Faculty. Examination of alternatives to dominant approaches to social studies. Suitable for experienced teachers interested in advanced methodology.
*A\&H L 5530. The history of American social thought (3) Professor Crocco. The history of A merican social thought as it has influenced and been influenced by theories of education and patterns of educational practice.

A\&HL 6500. Seminar in the history of the social studies (3) Professor Thornton. Permission required. Individual and group investigation and group discussions of such topics as listed in A\&H L5035, which is ordinarily a prerequisite.

A\&HL 6530. Curriculum development, research, and supervision (3)
Professor Thornton. A spects of curriculum; teaching and learning processes; attention to problems and techniques of supervision. For advanced students interested in the analysis and evaluation of educational programs and methods of instruction.

## Social Studies Content

A\&H L 4030. The study of history (3)
Professor Thornton. M ethods of historical analysis and interpretation. The discipline of history and its relationship to the social sciences. Suggested for all social studies majors; required for those who were not history majors.
*A\&H L 4032. The study of world history and geography (2-3)
Faculty. Particular attention paid to problems of conceptualization and interpretation involved in organizing and teaching world history with an emphasis in geography.

A \& H L 4033. History of Europe since 1914: selected topics (3) Faculty. M ain themes and problems in the teaching of recent European history. Topics: W orld W ar I, total itarianism, W orld W ar II, the new Europe, social and intellectual change.

A\&HL 4035. New York City as a learning laboratory (1-3)
Faculty. N ew York City's cultural, social, governmental, business, financial, medical institutions, neighborhoods, green spaces studied through field experiences.

A\&HL 4037. East A sia: survey of modern history and culture (2-3)
Dr. Martin. An overview of central themes in the modern history and culture of China, J apan and K orea.

A\&HL 4038. The study of American history and geography.
Illustrative themes in A merican history and geography for middle and high schools; students may elect to concentrate on either or both levels. A pplications to curriculum design and instructional materials.

## A \& H L 4039. The U nited States Constitution (2-3)

Dr. Tischler. Course includes major philosophical foundations, problems preceding and during the convention, the struggle for ratification, detailed examination of the document, important court cases, non-written constitutional traditions, and unresolved constitutional issues.

## *A\&HL 4040. Women of the

 world: Issues in teaching (2-3)Professor Crocco. W omen's lives (e.g., A frica, China, Latin America) past and present provide text for the course. Students' stories as told via oral/family history supplement. Reconceptual izing the history curriculum is a dominant theme. Special fee: $\$ 10$.

## Doctoral preparation

Doctoral preparation involves
three successive stages:

1. Exposure to basic research methods,
2. Identification of dissertation topic,
3. Presentation of a prospectus. In order to encourage doctoral students to progress through these stages, a sequence of seminars is customarily offered. Progress through these stages usually invol ves enrollment in the following courses:

- A\&H L 5503, Research paper in Social Studies (1-3)
- A\&H L 6503, D octoral seminar in Social Studies (1-3)
- A\&H L 7503, Dissertation seminar in Social Studies (1-2)
- A\&H L 8903, Dissertation advisement in Social Studies (0)

These seminars are ordinarily undertaken as soon as possible after completing the M.A. degree. Consult program advisor as to which course or courses you should enroll in during any particular semester.

## Independent Research, Fieldw ork and Internships

A\&HL 4903. Research and independent study in social studies (1-6)
Faculty. Permission required. To be taken under the direction of a faculty member. Students work individually or with others.

A\&HL 5203. Fieldwork in social studies (1-6)
Faculty. Permission required. Opportunity for qualified students, individually or in small groups, to develop and pursue projects, in consultation with an advisor, in schools, communities, and other field settings.

## A\&H L 5223. Oral history as a

 multidisciplinary teaching tool (0-2)Professor Crocco. Permission required. Students will learn the steps of oral history design for the classroom, including research, selection of interviewees, contact and context, conducting the interview, transcribing, reviewing, editing and processing. Special fee: $\$ 30$.

## A\&HL 5232. Fieldwork in social

 studies teacher training (2-3)Professor Crocco. Permission required. For advanced students engaged in supervision of student teachers. Supervised field work, individual conferences, and group seminar.

## A\&H L 5430. Internship in the

 teaching of history and social sciences (1-3)Faculty. Permission and advance application required. Ordinarily in secondary schools, junior colleges, teacher training programs or publishing work.

A\&H L 5931. Guided investigations in the teaching of social studies (1-3)
Faculty. Permission required. For advanced students. Individual fieldwork in secondary school or introductory col lege social studies.

A\&H L 6030. Research in social studies education (1-3)
Faculty. Permission required.
A\&HL 6203. Advanced fieldwork in social studies (1-6)
Faculty. Permission required. See description for A\&HL 5203.

A\&HL 6403. Internship in college teaching in social studies (1-6)
Faculty. Permission required. Occasional opportunities in college programs in areas represented by the program. Students must inquire to see if opportunities are avail able during any given semester.

A\&HL 6935. Studies in history and in the teaching of history and social studies (1-3)
Faculty. Permission required. Individual research and advanced historical method ordinarily related to a doctoral dissertation.

## See also:

A\&H 5500. Pro-seminar in arts and humanities (2)
Faculty. Concentration on the ethics of social research, examining special problems that arise in both quantitative and qualitative research.

## Teaching of English (Code: TLE)

Program Coordinator:
Professor L. Janet Miller

## D egrees offered:

Master of Arts (M.A.)
Master of Education (Ed.M.)
D octor of Education (Ed.D.) Doctor of Education (Ed.D.C.T.) in the College Teaching of English Doctor of Philosophy (Ph.D.) in English Education

## Special Application Requirements/Information:

 The M.A. degree in English Education is designed for stu-dents who plan to teach or are currently teaching. Applicants are required to submit official transcripts from all undergraduate institutions attended, two letters of recommendation, and a personal statement. A pplicants should complete at least 24 undergraduate and/or graduate credits in English, or equivalencies, prior to entering the program. Applicants for certification will need, at the time of graduation, 6 points of study at the undergraduate level in a foreign language. W aivers for second language fluency are available.

The Ed.M. degree in English Education offers experienced teachers the opportunity to continue their examination of issues, pedagogy, policy, and practice in the teaching of English. Special emphasis is placed on classroom based research and an examination of leadership roles in schools. Ed.M. applicants are required to submit a writing sample, must have earned an M.A. in English, English Education, or in an analogous field, and must have teaching experience at the secondary classroom level. A personal interview with a faculty advisor is required.

The Ed.D., Ed.D.C.T., and Ph.D. degrees in English Education combine course and fieldwork for teachers who: 1) have the desire to examine theoretical, research, and pedagogical principles as they apply to practice; 2) wish to prepare prospective teachers or engage in professional development work with in-service teachers; and 3) prepare themselves for leadership roles in the field of teaching English or English Education. A pplicants are required to submit a writing sample, must have an M.A. in English, English Education, or in a closely related field, and must have classroom teaching experience. A personal inter-
view with a faculty advisor is required.

## Program D escription:

## Master of Arts

An English teacher creates contexts for reading, writing, representing, performing, listening, and speaking. Classrooms are transitory environments and demand teachers who are aware of themsel ves as learners, capable of adapting to change, skilled at negotiating multiple literacies, and respectful of diversity.

Our program is committed to the professional devel opment of teachers as they pursue their teaching and scholarly lives. We recognize and value the variety of needs and experiences of a diverse student body, and we strive to provide our students with individual ized programs. This program offers new and experienced educators opportunities for intensive study in disciplined-based content, integrated curriculum, critical literacies, and pedagogies for increasingly diverse student populations.

Our program encourages students to seek a balance between breadth and specialization by offering a variety of pedagogical and content courses. Pedagogical courses focus on ideological and philosophical/ theoretical principles that shape the constructions of curriculum, as well as diverse strategies and methods for the teaching of multiple and critical literacies. Content courses include literature and writing electives that model the various literacy practices useful in teaching secondary students in English classrooms.

Two semesters of student teaching in public urban sites complement the course work in the M.A. with certification
degree and provide students with placements at both the middle school and high school levels where they can apply what they are learning in the program.

## Master of Education

The Ed.M. in English Education is a 60 -point program of study that includes in-depth work in theory and pedagogy as it applies to the teaching of multiple and critical literacies. Up to 30 points may be transferred from previous graduate study at an accredited institution toward the M aster of Education degree.

This master's program is designed for individuals interested in advanced study within the field of English Education or in interdisciplinary studies. The degree represents a commitment to research and study of issues in teaching and learning. The Ed.M. is designed for experienced teachers as a way to complement their work in schools and can serve as a preparation program for students who may want to enter the doctoral program. An acceptable special project/thesis is required for the degree (A\&H L5504).

## Doctor of Education

The Doctor of Education (Ed.D.), Doctor of Education in the College Teaching of English (Ed.D.C.T.), and the D octor of Philosophy (Ph.D.) programs in English Education provide theoretical, pedagogical, and research-oriented course work in literacy educa tion. The student will eventually focus on an area of interest for further inquiry. Teaching experience is required for admittance to both the Ed.D. and Ph.D. programs. Course work within doctoral programs reflects a range of issues and areas of study within the field.

The program is designed to represent a coherent network of courses. The number of courses required depends, in part, on the number of points transfered from previous graduate work.

## D egree requi rements:

## M aster of Arts

The M.A. in English Education is a 36 -point program (with certification for pre-service teachers) or a 32-point program (for in-service teachers) and can be completed with full-time enrollment in one academic year plus two summer sessions. For the award of the M.A., a special master's project must be completed.

The 36-point program should be distributed as follows:

Required writing courses:
Take at least one of the following:

- A\&H L 4156, W riting: non fiction
- A\&H L 4157, W riting: fiction
- A\&H L 4158, W riting: poetry

Required literature courses:
Take at least one of the following:

- A\&H L 4050, The study of literature
- A\&H L 4051, Critical approaches to literature
- A\&HL 4052, Adolescents \& literature
- A\&H L 4053, Cultural perspectives \& literature
- A\&H L 4056, Feminist perspectives and literature
- A\&HL 4100, Drama \& theater
- A\&H L 4561, N arrative \& story
- A\&H L 5151, Perspectives on popular texts

Required methods courses (9
points minimum):

- A\&H L 4057, English methods
- A\&H L 4058, Teaching of reading
- A\&H L 4151, Teaching of writing

Take at least one of the following:

- A\&H L 4155, Critical issues in the secondary English classroom
- A\&H L 4550, Teaching of poetry
- A\&H L 4551, Teaching of Shakespeare
- A\&HL 5518, Diversity: social and cultural contexts in the English classroom

Required Student Teaching course work (8 points minimum):

- A\&H L4750, Supervised Student Teaching of English Seminar*
*Students enroll in A\&H L 4750 twice in order to support: 1) a middle/junior high school student teaching experience, and 2) a senior high school student teaching experience. This seminar serves as a forum to address the needs, issues and challenges that may arise during the student teaching experience.
*A\&H L 4751 Field work and observation in secondary English (2 points minimum)
*Other N ew York State requirements are detailed in the M.A. program description.

Required F oundations course work ( $6-9$ points minimum): A ny three Teachers College courses that are N OT A\&HL. Each Foundations course must be taken for a minimum of 2 points.

Electives:

* Any graduate-level course(s) taken at Teachers College and/or Columbia U niversity applied to overall credit requirement for the M.A.

Special Project (1 point):

- A\&HL 5590, M aster's seminar*
*Required by the College of all M aster's pre-service students.
M ust be taken twice.
The 32-point program should be distributed as follows:

Required writing courses:
Take at least one of the
following:

- A\&H L 4156, W riting: non fiction
- A \& H L 4157, W riting: fiction
- A\&H L 4158, W riting: poetry

R equired literature courses:
Take at least one of the
following:

- A\&H L 4058, Teaching of reading
- A\&H L 4050, The Study of literature
- A\&H L 4051, A merican literature
- A\&H L 4052, A dol escent literature
- A\&H L 4053, A frican A merican literature
- A\&H L 4056, W omen writers of the 20th century
- A\&H L 4100, Contemporary theater
- A\&H L 4561, A merican short story
- A\&H L 5151, Perspectives on popular texts

Required methods courses (13 points minimum):

- A\&H L 4057, English methods
- A\&HL 4058, Teaching of reading
- A\&H L 4151, Teaching of writing

Take at least one of the following:

- A\&H L 4155, Teaching strategies
- A\&HL 4550, Teaching of poetry
- A\&H L 4551, Teaching of Shakespeare
- A\&HL 5518, Diversity: social and cultural contexts in the English classroom

Required Foundations course work (6-9 points minimum):
A ny three Teachers College courses that are N OT A\&H L. Each Foundations course must betaken for a minimum of 2 points.

Electives:

* Any graduate-level course(s) taken at Teachers College and/or Columbia University applied to overall credit requirement for the M.A.

Special Project (1 point):

- A \& H L 5590, M aster's seminar*
*Required by the College of all master's-level students.


## Master of Education

The 60-point program should be distributed as follows:

Research M ethods (9 points minimum):
These courses may betaken in any department of Teachers
College and may be from
either 4000 or 5000 level.
Although courses may include both quantitative and/or qualitative methods, we recommend that at least one course represent study in the area of qualitative research.

Foundation courses (6 points minimum):
These courses are intended to broaden knowledge of educational issues and practices beyond those of your particular area concentration. Students must take at least TH REE Teachers College courses (for a minimum of 2 points each) from departments outside of Arts \& H umanities. This requirement must be completed while at Teachers College.

Courses within the English
Education program (15 points minimum*):
Recommended courses at the 4000
level (no more than 9 points) include:

- A\&H L 4050, The Study of literature
- A\&H L 4051, American literature
- A\&H L 4052, A dolescent literature
- A\&H L 4053, A frican American literature
- A\&H L 4056, W omen writers in the 20th century
- A\&HL 4057, English methods
- A\&H L 4058, Teaching of reading
- A\&HL 4100, Contemporary theater
- A\&H L 4154, Rhetoric: connecting reading and writing
- A\&H L 4155, Teaching strategies
- A\&HL 4550, Teaching of poetry
- A\&H L 4551, Teaching of Shakespeare
- A\&H L 4561, A merican short story
- A\&H L 4151, Teaching of writing

Recommended courses at the 5000 and 6000 level (no more than 30 points):

- A\&H L 5149, W riting research: methods and assumptions
- A\&HL 5150, Research in practice
- A\&H L 5151, Perspectives of popular literature in the English classroom
- A\&H L 5504, Research paper in the teaching of English
- A\&H L 5514, Reader response: research, theory, and practice
- A\&H L 5518, Diversity: social and cultural contexts in the English classroom
- A\&HL 6011, The Politics of teaching English
- A\&H L 6015, College teaching of English
- A \&H L 6450, Internship in the teaching of writing
- A\&H L 6514, Postmodern literary theory: an aesthetic dimension
*Students must complete between 15-45 credits of study at the 4000, 5000, and 6000 level within the English Education program, depending on how many credits are transferred in. It is possible to substitute a 12-15 credit specialization in another area with advisor's approval. Students transferring up to 30 points should take most of their courses at the more advanced 5000 and 6000 level.


## Special project/thesis:

The Ed.M. Thesis represents a refined presentation of the student's research question and area of inquiry; it entail work which results in an original synthesis of a broad reading of theory and research, and is underscored by the student's practical experience as a teacher. The thesis includes:

- A\&H L 5504, Research paper (1-3 points)
a) a rational e for the project and demonstration of an understanding of the literature of the field rel ated to the topic(s) undertaken;
b) a discussion of a pilot study including the methodology that shapes the study;
c) a critique of the pilot study explaining its significance as well as the research methods employed;
d) implications relevant to the student's future research
Register for the thesis for 1 credit each semester for three consecutive semesters.


## Doctoral Programs

Students working toward a 90-point Ed.D degree are able to transfer a maximum of 36 points from previous graduate study. Ed.D. students will complete at least 54 points within the program to complete their doctoral work.

Students working towards a 75-point Ph.D. degree will al so complete a 50-point program and thus may transfer up to 25 points from previous graduate work.

Required doctoral course work within the English Education program (with advi sor's approval):

- A\&H L 6015, College teaching of English*
- A\&HL 5504, R esearch paper in the teaching of English
- A\&H L 6504, D octoral seminar in the teaching of English (continuous enrollment)
- A\&HL 7504, Dissertation proposal seminar in the teaching of English
- A\&HL 8904, Dissertation advisement in the teaching of English
*For students seeking the Ed.D.C.T.

All course work in the English Education program must be approved by an academic advisor:

* No courses may be taken toward either the Ed.D. or the Ph.D. that are "R" (attendance) credits and no courses may be taken toward the degree that are "P" (pass/fail).
* Students must consult their academic advisory when they undertake an independent study, an internship, a practicum, or courses at Columbia University.
* Doctoral students are strongly discouraged from taking 4000-level courses, and must consult with their academic advisor before registering for these courses.

Both Ed.D. and Ph.D. students must complete a fifty point program of study, with all courses approved by an academic advisor, to meet the degree requirements for the English Education program. The program of study encompassing these points is designed to represent a coherent network of
courses, and it reflects a range of topics in English Education. All areas of study should have consistent emphases within courses on social and political contexts in English Education, and issues of teacher education are al ways rel evant.

C andidates should keep in touch with the Office of D octoral Studies to obtain information about the latest procedures, deadlines and documents.

Courses: (* = course open to non-majors)
*A \&HL 4050. The study of literature (3)
Faculty. An examination of multiple approaches to reading traditional and contemporary texts using theory, criticism, and textual practices. Special fee: $\$ 30$.

## *A \& H L 4051. Critical

 approaches to literature (2-3)Faculty. Literary selections are examined through various critical frameworks emphasizing the way texts are constructed and how readers negotiate meaning with texts. Special fee: $\$ 30$.

## A\&H L 4052. A dolescents and

## literature (3)

Faculty. Discussions focus on issues of adolescent diversity, urban experience, gender and the teaching of adolescents and literature. Special fee: $\$ 30$.

## *A\&HL 4053. Cultural perspectives and literature (3)

Faculty. Contemporary A fricanAmerican literary sel ections are explored within a theoretical context that emphasizes historical, cultural, political, and aesthetic dimensions of these texts.
*A\&HL 4056. Feminist perspectives and literature (2-3)
Faculty. An examination of women writers of the 20th century, exploring common themes: growing up female, marriage and the family, women as artists, and minority women within a critical feminist framework. Special fee: $\$ 30$.

A\&H L 4057. English methods (3) Faculty. A required course which focuses on practical aspects of teaching English, including lesson and unit plans, effective teaching strategies, evaluation and assessment, curriculum design, and integration of language arts. The overarching theme addresses literacy practices as historically situated and contextualized. Special fee: $\$ 50$.

## A\&HL 4058. Teaching of read-

 ing (3)Faculty. The course focuses on hel ping teachers examine theoretical and pedagogical principles rele vant to teaching literary and non literary texts with emphasis on the relations of texts and readers. Special fee: $\$ 125$.

## A\&HL 4100. Drama and theater

 (3)Faculty. The role of drama in the classroom. Students will examine the role of theaters in the community, examining production, performance and the educative power of drama.

A\&HL 4150. Teaching literacies in secondary maths, sciences and the humanities (3)
Faculty. Prepares secondary teachers in disciplines other than English to meet new literacy requirements for both teachers and students. The effective use of listening, speaking, reading writing and other modes of representing to promote learning will be demonstrated. Special fee: $\$ 60$.

A\&HL 4151. Teaching of writing (3)
Faculty. The course integrates theory and practice for teachers. Topics include the textual character of genres, critical perspectives on writing instruction, research on writing, evaluation and assessment of writing, and classroom methods for teaching writing. This course is taught with A\&HL 4156, W riting: N onfiction, as part of a 6 credit sequence. Special fee: $\$ 125$.

## A\&HL 4152. Literacies and

 technologies in the secondary English classroom (3)Faculty. Introduces students to media technol ogy as it relates to secondary English education. English is an increasingly mediated and technologized discipline. New
technologies have enabled emerging practices that have significant implications for literacy learning and teaching. Special fee: $\$ 120$.

A\&HL 4154. Rhetoric (3) Faculty. The course examines the applicability of the rhetorical tradition. for students and teachers, emphasizing the culture and knowledge exhibited in texts, writers and readers.

A\&HL 4155. Critical issues in the secondary English classroom (2-3)
Faculty. An examination of critical issues that shape and reshape the teaching and learning of literacies in English classrooms.

A\&HL 4156. Writing: nonfiction (3)

Faculty. A non-fiction writing workshop. This course is taught as part of 6 credit block with A\&HL 4151. Teaching of writing. Special fee: $\$ 50$.

## A\&HL 4157. Writing: fiction

 and personal narrative (3) Faculty. A fiction writing workshop.A \& H L 4158. Writing: poetry (3)
Faculty. A poetry writing class combined with close readings of selected contemporary poets.

A\&HL 4550. Teaching of poetry (3)

Faculty. Experience in reading and writing poetry, designing curriculum, and determining effective teaching practices.

A\&H L 4551. Teaching of Shakespeare (3)
Faculty. An examination of diverse theoretical perspectives and pedagogical principles for teaching Shakespeare. Special fee: $\$ 50$.

A\&HL 4552. Curriculum and assessment in the secondary English classroom (2)
Faculty. Dominant curriculum theories of the 20th century, related assessment and evaluation methods and traditions, and current approaches to assessing student and teacher learning in the secondary English classroom. Spe cial fee: \$35.
*A \& H L 4561. N arrative and story (3)
Faculty. An introduction to narrative theory and constructing stories.

A\&HL 4750. Supervised teaching of English (3)
Faculty. M ajors only. Students may satisfy state certification require ments by participating in the supervised teaching program in the Fall and Spring semesters. Students should plan to reserve part of each day M onday through Friday for classroom experience. Special fee: \$50.

A\&HL 5149. Writing research: methods and assumptions (3)
Faculty. Examines assumptions that undergird the range of philosophies, intellectual traditions, and points of view that influence research writing.

A\&HL 5150. Research in practice (2)
Faculty. Examines the role of research in knowledge/production, in teaching and learning.

A\&HL 5151. Perspectives on "popular" texts in English classrooms (3)
Faculty. This course unites poststructuralist literacy theory with cultural studies. Through a range of class activities and readings, the course will explore intersections between feminism, post-modern aesthetics, and "popular" texts.

A\&HL 5153. Academic writing II (3)
Seprogram in A pplied Linguistics.
A\&H L 5514. Readers' responses: research, theory and practice (3) Faculty. This course is an advanced seminar for students exploring research issues related to an examination of reading processes. Various models of critical literacy will be studied including the influence of psychological, transactional, feminist, and social accounts of reading on current theory and practice

A\&HL 5518. Teaching English in diverse social and cultural contexts (3)
Faculty. A seminar examining how gender, class, race, ethnicity and sexual orientation issues inform instructional goals, curriculum planning/implementation, and
practices in the teaching of literature, language, and composition in English language arts classrooms. Special fee: 30.

## A\&H L 5590. Master's seminar:

## Teaching of English (1)

Faculty. Designed to prepare students for completing integrative project for the M.A. degree, students participate in seminars which are oriented towards creating an academic, professional, and social network. Students research an area of special interest and share their findings. Special fee: $\$ 30$.

## A\&H L 6011. The politics of teaching English (3)

Faculty. An examination of political and socio-cultural theories of language, literature, and composition that inform diverse ideological constructions of knowledge, curriculum, and pedagogy in English language arts education.

## A\&H L 6015. College teaching of

 English (3)Faculty. An examination of programs and methods of instruction in English courses on the college level.

A\&H L 6514. Postmodern textual theory (3)
Faculty. Teachers will examine literary and theoretical texts central to postmodern theory. Students will explore, through a diverse range of means and media, texts deemed pivotal to postmodern approaches and principles.

## Independent study, fieldw ork

 and internships
## A\&H L 4751. Fieldwork and

 observation on secondary English (1)Faculty. A series of guided observations of schools, teachers, and students. Student teachers will synthesize theoretical knowledge with intense practical experience to integrate educational philosophy with the reality of day-to-day life teaching in a secondary English language arts classroom. Spe cial fee: $\$ 20$.

A\&H L 4904. Independent study in teaching of English (1-6) Permission required. Research and independent study under the direction of a faculty member.

Students work individually or with others.

## A\&HL 5204. Fieldwork in

## teaching of English (1-6)

Permission required. Opportunity for qualified students, individually or in small groups, to develop and pursue projects, in consultation with an advisor, in schools, communities, and other field settings.

## A\&H L 6204. Advanced field-

 work in teaching of English (1-6)Permission required. See description for A\&HL 5204.

A\&H L 6404. Internship in college teaching of English (1-6) Permission required. Opportunities to work in college programs. Students must inquire to see if opportunities are available during any given semester. Special fee: $\$ 20$.

## A\&H L 6450. Internship in teaching English (1-3)

A forum designed to offer students with a deep interest in the teaching of writing an opportunity to explore key issues in the field through their involvement with students, teachers, and classroom settings throughout the city or, for some students, tutoring work for theTC W riting Skills Center.

## See also:

Department of $M$ athematics, Science and Technology. M STU 4040. Computers and writing (3)

Teaching English to
Speakers of Other
Languages (TESOL)
(Code: TLZ)
Program Coordinator: Professor James E. Purpura

## D egrees offered:

M aster of Arts (M.A.)
M aster of Education (Ed.M.)
Doctor of Education (Ed.D.)
For updated information on the TESOL Program, consult the TESOL web page at: http://www.tc.columbia.edu/ academic/tesol/

For updated information on the A pplied Linguistics Program, consult the TESOL web page at: http://www.tc.columbia.edu/ academic/appliedlinguistics/

## Special Application <br> Requirements/I nformation:

Applications for the M.A. will be accepted for the fall only according to the priority dates.

A student in this program who wants to qualify for N ew York State teaching certification must complete the program and file for certification prior to February 1, 2004. Teachers College is developing new programs to meet regulations that go into effect after February 1, 2004. These programs will be outlined in next year's catalog.

Applications for the Ed.M. or Ed.D. programs will be accepted for the fall and spring priority dates. Any application recei ved after those dates may N OT bereviewed. A writing sample is required with all Ed.M. and Ed.D. applications. Applicants to the Ed.M. and Ed.D. programs must have an M .A. in TESOL, applied linguistics or related field.

Ed.M. applicants may transfer up to 30 credit points into the TESOL program from previous graduate study at an accredited institution. Applicants who have already earned an M.A. from Teachers College may transfer an additional 15 points from an outside institution. Ed.D. students may transfer up to 45 credit points from previous graduate study at an accredited institution. All transfer of credit points must meet the approval of a faculty advisor.

All students are expected to write and speak in a way that is appropriate to their professional responsibilities. Students having difficulty in achieving these standards will be required to take additional course work.

All non-native speakers of English, including those who have an undergraduate degree from an English-medium university in theU.S. or abroad, must submit either:

- a minimum score of 600 on the TOEFL or a 250 on the computer-based equival ent as well as a minimum score of 5 on the Test of W ritten English (TW E), or
- a score of B or better on the Cambridge Certificate of Proficiency in English (CEP), or
- a score of 7.0 or better on the Cambridge International English Language Testing System (IELTS).

All non-native speakers of English must also submit either a score of 50 on the Test of Spoken English (TSE) or a score of 50 on the SPEAK Test.

## Program D escription:

The program in TESOL provides students with a solid foundation in the English Ianguage so that pedagogical and research questions rel ated to the teaching, learning and assessment of English as a second or foreign language (ESL/EFL) may be formulated, examined and resolved. M ore specifically, the TESOL program helps students develop strategies, firmly grounded in research, theory and practice, to teach ESL in the US, to teach EFL internationally, or to do research on the teaching, learning or assessment of English as a second or foreign Ianguage. The program emphasizes study in the following areas:

- Second language teaching methodologies
- Teaching of the language skills
- Language and language teaching for specific purposes
- Language in the content areas
- Culture and language teaching
- ESL/EFL materials development and curriculum design
- Language teacher observation and supervision
- Language teacher education
- Second language acquisition
- Language classroom interaction
- Second language literacy
- Language program evaluation
- Technology and language teaching
- Classroom-based research methods

Graduates from the TESOL program typically teach ESL or EFL in elementary or secondary schools, in colleges or universities, in language schools or institutes abroad, or in businesses or international organizations. Others work for publishers or computer companies that produce ESL/EFL products. Finally, many TESOL graduates work as language program administrators or teacher educators in colleges or universities around the world.

As $N$ ew York City offers one of the most diverse settings in the world for teaching ESL, the TESOL program collaborates with a number of schools in the city to provide students with opportunities to teach or do research in these settings. In addition, the TESOL program sponsors the Community English Program (CEP) for nonnative English speaking adults from the adjoining community. The CEP serves as an on-site language education lab in which students enrolled in the TESOL program teach the courses, administer the program and use the CEP for empirical inquiry.

## D egree Requirements:

## M aster of Arts

TheTESOL program offers two tracks in the M aster of Arts program:

General Track: The TESOL General Track Program offers a 36-point M aster of Arts degree for students wishing to teach in any setting except in the N ew York State public schools. The General Track does not prepare students to obtain N ew York State K - 12 Certification in ESL (see below). Students in the TESOL General Track Program take a wide range of courses offered in TESOL and related areas such as A pplied Linguistics, that provide breadth to their program.

Required courses in TESOL
Geneal Track:

- A\&H L 4077, Classroom practices (3)
- A\&H L 4085, Pedagogical English grammar (3)
- A\&H L 4101, Phonetics and phonology (3)
- A\&H L 4087, Second Ianguage acquisition (3)
- A\&H L 4088, Second Ianguage assessment (3)
- A\&H L 5360-A \& H L 5379, Specialized practica for ESOL teachers (minimum of two) (6)
- TESO L workshops (minimum of three) (3)

Required courses out of program (3 courses of at least two points each: 6 points minimum). To be chosen with advisor's approval.

Elective courses in TESOL or applied linguistics: Advanced English syntax, Semantic systems and the lexicon, Sociolinguistics and education, Discourse anal ysis, Interl anguage analysis, Trends in second language acquisition, Advanced topics in applied linguistics I or II, (6 points). To bechosen with advi sor's approval.

In addition, students in this
M .A. program are required to complete a comprehensive exam and write a final essay.

## K-12 Certification Track:

The TESOL K-12 Certification Program offers a 42-point Master of Arts degree with N ew York State Teacher Certification. This is for students wishing to teach in the N ew Y ork public schools. Students wishing to teach in a public school in another state are advised to consult the certification requirements for that state.

Required courses in TESOL *:

- A\&H L 4077, Classroom practices (3)
- A\&H L 4101, Phonetics and phonology (3)
- A\&H L 4085, Pedagogical English grammar (3)
- A\&H L 4087, Second Ianguage acquisition (3)
- A\&HL 4088, Second Ianguage assessment (3)
- A\&H L 5360-A\&H L 5379, Specialized practica for ESOL teachers (minimum of one) (3)
- A\&HL 4076, TESOL methodologies for K-6 (3)
- A\&HL 4171, TESOL methodologies for 7-12 (3)
- A\&H L 4776, Supervised student teaching (1 semester K-6) (3)
- A\&H L 4776, Supervised student teaching (1 semester 7-12) (3)
- A\&H L 5202, Fieldwork in TESOL (1 semester K-6) (1)
- A\&HL 5202, Fieldwork in TESOL (1 semester 7-12) (1)
- TESOL workshops (minimum of three at 1 point each) (3)
* Please note that K-12 Certification requirements are subject to change based on the latest N ew York State
Certification regulations.
Required courses outside the program (4-6 points)
- Special education (2-3)
- Bilingual education (2-3)

Elective courses in TESOL or Applied Linguistics*: Advanced English syntax, Semantic systems and the lexicon, Sociolinguistics and education, Discourse analysis, Interlanguage anal ysis, Trends in second language acquisition, Advanced topics in applied linguistics I or II, (6 points). To be chosen with advisor approval.

* R efer to A pplied Linguistics

Program for descriptions of
A pplied Linguistics courses.
Finally, students in this M.A. program are required to complete a comprehensive exam and write a final essay.

## Master of Education

TheTESOL Program offers a M aster of Education (Ed.M.), requiring a minimum of 60 points of graduate study. The Ed.M. involves in-depth study in one or more areas of TESOL. The Ed.M. is designed to complement former professional training at the M.A. level, and it sometimes serves as initial preparation for entering the doctoral program.

Students who did not receive an M.A. in TESOL from Teachers College will be expected to complete all the required courses from the TESOL M.A. Exemptions based on prior course work must be approved by the professor teaching the course and the advisor.

Required courses in TESOL (or A pplied L inguistics) (12):

- A\&H L 4001, Sociolinguistics and education OR
- A\&H L 4104, Discourse analysis
- A\&HL 4086, Observation OR
- A\&HL 5577, Language teacher education programs
- A\&HL 5575, Critical review of readings in TESOL and applied linguistics
- A\&H L 6587, Seminar in second language acquisition: cross-cultural pragmatics

Those students who do not al ready have a degree from Teachers College must take three courses of at least two points each from outside the TESOL or Applied Linguistics programs. (6-9)

A t least one out-of-program course must befrom the following:

- H U DM 4120, Basic concepts in statistics
- HUDM 4122, Probability and statistical inference
- HUDM 4050, Introduction to measurement
- HUDM 5021, M ethods of empirical research
- One of the qual itative research methods courses offered at the College.
To be chosen with advisor's approval.

Electives in TESOL (or A pplied Linguistics) (3 from the following): (9)

- A\&HL 4001, Sociolinguistics and education OR
- A\&HL 4104, Discourse analysis
- A\&H L 4080, Teaching English in diverse social/cultural contexts
- A\&HL 4008, Interlanguage analysis
- A\&H L 4014, Gender, Ianguage \& education
- A\&H L 4005, Semantic systems and the lexicon
- A\&H L 4086, Observation
- A\&H L 5515, Advanced topics in applied linguisticsl
- A\&H L 5516, Advanced topics in applied linguistics II
- A\&H L 5577, Language teacher education programs
- A\&H L 5581, Psychol inguistic dimensions of SLA
- A\&HL 5582, Sociolinguistic dimensions of SLA
- A\&H L 5583, The social psychology of SLA
- A\&HL 5586, Interlanguage phonology
- A\&H L 5587, Interlanguage syntax
- A\&H L 5588, Trends in SLA Research
- A\&HL 5589, Language transfer in SLA

All Ed.M . students must complete an Ed.M. project, written on a research theme arising from their course-related interests and subject to approval by their advisor.

## Doctor of Education

The TESOL Program offers an Ed.D. in TESOL requiring a minimum of 90 points of graduate study. The Ed.D. involves sustained and in-depth study in an area of specialization in TESOL and is designed for students wishing to pursue empirical research in one of the following areas: Language teaching methodology, Teaching one of the language skills, Teaching language for specific purposes, Language in the content areas, ESL/EFL materials development and curriculum design, Language teacher education, Second language acquisition, Second Ianguage literacy, Second language classroom interaction, and Language program evaluation.

Students who did not receive an M.A. or Ed.M. in TESOL from Teachers College will be expected to have completed all the required courses from the TESOL Ed.M. above.

Doctoral students have three types of requirements: concentration requirements, research methods requirements, and doctoral preparation requirements.

C oncentration Requirements: Students are required to take a minimum number of points in their concentrations. The exact courses should be decided in consultation with their advisor.

Research Requirements
(12 points)
To ensure that students have the skills to do scholarly research in their area of concentration, they are required to take a minimum of 12 points in research methods, statistics and measurement. Depending on the type of dissertation, students may be asked to take additional courses in these areas. The following elective research preparation courses should be taken in consultation with the doctoral advisor:

Required $R$ esearch M ethods
Courses

- HUDM 5021, M ethods of empirical research (3):and one of thefollowing:
- M STF 5000, M ethods of inquiry: Ethnography \& participant observation (3)
- M STF 5001, Ethnography \& participant observation (3)
- C\&T 5502, Introduction to qual itative research in curriculum \& teaching (3)
- M STF 5059, Qualitative research methods for educators (3)

Required $M$ easurement and Statistics C ourses

- HUDM 4050, Introduction to measurement or in consultation with an advisor (3).
- HUDM 4122, Probability and statistical inference or a more advanced course (3)

D octoral Preparation
Requirements:
W hen doctoral students reach approximately 45 points in the program, they are required to register for and attend doctoral seminar every semester. Doctoral seminar is considered a fundamental venue for socialization in the research culture in our field.

D octoral students are required to demonstrate research pre paredness in a substantive area by passing the research paper (5500), the certification exam
(6500 part 1) and the certification paper ( 6500 part 2).Then, as evidence that they are able to carry out original research under the guidance of a doctoral committee, they must write a dissertation prospectus (7500) and a doctoral dissertation (8900)

To prepare for these require ments, students will need to take the following seminars:

- A\&HL 5501, Research paper: applied linguistics (1-3 each course) OR
- A\&H L 5505, R esearch paper: TESOL (1-3 each course) OR
- A\&H L 5507, Research paper: TESOL/Applied linguistics (1-3 each course)
- A\&H L 6501, Certification exam and paper: applied linguistics (1-3 each course) OR
- A\&H L 6505, Certification exam and paper: TESOL (1-3 each course) OR
- A\&HL 6507, Certification exam and paper: TESOL/Applied linguistics (1-3 each course)
- A\&HL 7501, Dissertation prospectus: applied linguistics (1-2 each course) OR
- A\&HL 7505, Dissertation prospectus: TESOL (1-2 each course) OR
- A\&HL 7507, Dissertation prospectus: TESOL/A pplied linguistics (1-2 each course)
- A\&HL 8901, Dissertation advisement Applied Linguistics (0)
- A\&H L 8905, Dissertation advisement TESOL (0)
- A\&HL 8907, Dissertation advisement TESOL and A pplied Linguistics (0)

C andidates should consult the Office of $D$ octoral Studies to becertain of complying with the latest proce dures, deadlines and documents.

Courses: (* = course open to non-majors)

## Basic Courses

*A\&HL 4076. TESOL method-

## ologies for K-6 (3)

Ms. Pinkley. Introduction to activities, materials, and principles particularly suited to students in elementary and secondary schools. Special fee: $\$ 20$.
*A\&HL 4077. TESOL classroom practices (3)
Mr. McCormack. Introduction to the major language teaching approaches that have been influential in the 20th century. Special fee: $\$ 10$.
*A\&HL 4078. TESOL materials (3)

Faculty. Practice in designing, developing, characterizing and critiquing materials in use and determining their suitability for different settings.

## *A\&HL 4080. Teaching in linguistically diverse classrooms (3)

Faculty. Supports teachers in mainstream classrooms, grades 5-12, in building a knowledge base and a repertoire of instructional strategies that will enhance the learning of language-minority students. Special fee: $\$ 10$.

## A\&H L 4085. Pedagogical Eng-

## lish grammar (3)

Dr. Williams. An in-depth examination of English language grammar as it applies to language teaching and learning. Offered in Fall and Spring only. Special fee: $\$ 10$.

A\&H L 4086. Observation (3)
Faculty. Introduction to systematic observation of methods and other communications in classrooms and of a range of interactions outside of classrooms as well. Special fee: $\$ 10$.

## A\&H L 4087. Introduction to

 second language acquisition (3) Faculty. Prerequisite: A\&H L 4085. Survey of models and basic principles of second language acquisition and examination of how language acquisition research can inform language teaching, learning and assessment. Offered in Fall and Spring only. Special fee: $\$ 20$.A\&HL 4088. Second language assessment (3)
Professor Purpura. Prerequisite: A\&HL 4085 or permission of instructor. Introduction to language assessment practices including: test design, construction, anal ysis and reporting; introduction to measurement concepts and basic statistics; use of the computer in language assessment. Offered in Fall and Spring only. Special fee: $\$ 20$.

A\&H L 4089. Teaching writing to ESL students (3)
Faculty. Teaching writing to ESL students, particularly for secondary, college and adult teachers. Theory and classroom practices integrated through readings, writing, discussion, and experiences. Special fee: $\$ 10$.

A\&H L 4160-A \&H L 4180. Specialized TESOL methodologies (N oncredit or 0-1 each workshops) Faculty/Staff. N ot all workshops are offered each term or year. Selections are offered according to student interest and staff avail ability. W orkshops usually meet over 1 or 2 weekends.

- A\&HL 4160. The Silent Way
- A\&HL 4161. Counseling learning/community language learning
- A\&HL 4162. Small group activities and cooperative learning
- A\&HL 4163. Role playing and simulations in lantuage learning
- A\&HL 4164. English for specific purposes
- A\&HL 4165. English for academic purposes
- A\&HL 4166. Computerassisted language learning
- A\&HL 4167. Media-assisted language learning
- A\&HL 4168. Culture and second language teaching
- A\&HL 4169. Literature in the ESOL class
- A\&HL 4170. Drill vs. communicative practice in language learning
- A\&HL 4172. Teaching English in non-English speaking countries
- A\&HL 4173. Task-based and functional approaches to language learning
- A\&HL 4174. The grammatical approach
- A\&H L 4175. Facilitating autonomy in language learning
- A\&H L 4176. Listening
- A\&H L 4177. Speaking
- A\&H L 4178. Reading
- A\&H L 4179. Writing
- A\&H L 4180. Trends: new directions in ESOL

A\&HL 4171. TESOL Methodologies for 7-12 (3)
Staff. Teaching English to 7-12 students through content areas like science, math and social studies. Special fee: $\$ 10$.
*A\&HL 4500. Advanced English language study (1-2)
Faculty. Development of speaking, listening, reading, and writing skills for use in an academic setting; emphasis on composing and editing projects for previous and ongoing classes; discussion of crosscultural topics. Topics and emphasis change each term. Course may be taken more than once. Ideal for nonnative writers of English or those wishing to devel op their writing skills. Limit 1 point toward TESOL or A pplied Linguistics degree. Special fee: $\$ 10$.

A\&HL 4570. Classroom strategies for teaching language minority learners (0)
Staff. Introduction to accommodating language minority learners in mainstream classes. Required for supervised student teaching in Arts and H umanities. Special fee: $\$ 10$.

A\&HL 4817-A\&H L 4819. Experiences in learning another language ( N oncredit or 1 each workshop)
Faculty. Experience in learning to read, write, speak, and listen to a foreign language through a brief immersion; perspective on principles and methods from a learner's point of view. M ethod varies from term to term and the workshop may be taken more than once.

- A\&H L 4817. The Silent Way
- A\&H L 4818. Counseling Learning/Community Language Learning
- A\&H L 4819. Trends in language teaching

A\&H L 4860-A\&H L 4880. Specialized materials (N oncredit or 0-1 each workshop)
Faculty/Staff. N ot all workhops are offered each term or year. W ork-
shops are offered according to student interest and staff availability. W orkshops usually meet over 1 or 2 weekends

## Advanced Courses

A\&HL 5575. Research literacy in Applied Linguistics and TESOL (3)
Professor Beebe. Introduction to research literacy for applied linguists and ESL/EFL teachers and second language acquisition researchers with critical reading of professsional journals and classic works in the fields of applied linguistics and English Iangauge teaching and learning. Offered in Fall only. Special fee: $\$ 10$.

A\&HL 5577. Language teacher education programs (3)
Faculty. M odels, practices, and issues in teacher preparation and professional devel opment, including supervision. Special fee: $\$ 10$.

## A\&HL 5581-A\&H L 5589. Topics

in second language acquisition (3)

See A ppli ied L inguistics program.
A\&HL 6587. Seminar in second language acquisition: crosscultural pragmatics (3) Professor Beebe. Permission required. Prerequisite: A \& H L 4087 or permission of instructor. An in-depth analysis of research on second language acquisition, focusing on topics such as cross-cultural pragmatics, pragmatic development, interlanguage pragmatics, stylistic variation, and language transfer. Offered in Fall only. Special fee: $\$ 10$.

## Practica

The following practica are designed to enable student teachers to apply theory to classroom practice. The credit hours for practica do not accurately reflect the time commitment they require. In addition to teaching from 6 to 12 clock hours per week, student teachers must set aside 3 hours per week for seminars and from 6 to 10 hours per week for teaching preparation, observa-
tion, and individual conferences to discuss their teaching.

A\&H L 4776. Supervised student teaching in TESOL (3)
Faculty/Staff. Permission required. A supervised teaching experience for M.A. students who are interested in working toward a New York State teaching certificate in ESOL N-12 (nursery School to 12th grade) and who have not taught ESL in grades $\mathrm{N}-12$ for at least two years, full time. During the terms of practice teaching, students are not permitted to hold full-time jobs. Course may be taken more than once.

A\&H L 5360-A \&H L 5379. Specialized practica for ESL teachers in the CEP ( 3 each course) Faculty/Staff. These practica offer a teaching experience in TC's Community English Program (CEP). The course titles of these practica parallel the workshop titles from A\&H L 4160-A \& H L4180. Enrollment in one of these specialized practica requires previous or concurrent enrollment in one of the related workshops from A\&H L4160-A \&H L4180. For example, if a student enrolls in A\&H L 5177, the teaching of speaking, previous or concurrent registration of A\&HL 4177, a workshop in teaching speaking, is also required.

## A\&H L 5380. Specialized practica for ESOL teachers: inservice teaching (3)

Faculty/Staff. Permission required. A supervised student teaching experience for M.A. students interested in working toward a N ew York State teaching certificate in TESOL and who are currently teaching full-time in the public schools. Course may betaken more than once.

A\&HL 6375. Professional development seminar in TESOL (3-9) Faculty. Permission required. Participants relate their own teaching experiences to other courses they audit at the College. They develop projects related to their courses and readings, but do not have to fulfill the requirements of other courses. W ork can be done at Teachers College and in N ew York City or at one's own teaching site any place in the world.

## Independent research, fieldw ork and internships

A\&H L 4901. Research and independent study: applied linguistics (1-6)
Professor Purpura: Permission of instructor. Research under the direction of a faculty member. Students work individually or with others. Course may be taken more than once.

A\&HL 4095. Research and independent study in TESOL (1-6) Professor H an: Permission of instructor. Research under the direction of a faculty member. Students work individually or with others. Course may be taken more than once.

A\&H L 4907. Research and independent study in
TESOL/A pplied linguistics
(1-6)
Professor Beebe: Permission of instructor. R esearch under the direction of a faculty member. Students work individually or with others. Course may be taken more than once.

## A\&H L 5201. Fieldwork in

applied linguistics (1-6)
Professor Purpura: Permission of instructor. Opportunity for qualified students, individually or in small groups, to develop and pursue projects, in consultation with an advisor, in schools, communities, and other field settings. Course may betaken morethan once.

## A\&H L 5205. Fieldwork in

 TESOL (1-6)Professor Han: Permission of instructor. Opportunity for qualified students, individually or in small groups, to develop and pursue projects, in consultation with an advisor, in schools, communities, and other field settings. Course may be taken morethan once.

## A\&HL 5207. Fieldwork in

 TESOL/A pplied Linguistics (1-6)Professor Beebe Permission of instructor. Opportunity for qualified students, individually or in small groups, to develop and pursue projects, in consultation with an advisor, in schools, communities, and other field settings. Course may be taken morethan once.

A\&HL 6201. Advanced fieldwork in applied linguistics (1-6)
Professor Purpura: Permission of instructor. See description for A\&HL 5205. Course may betaken more than once.

A\&HL 6205. Advanced fieldwork in TESOL (1-6)
Professor H an: Permission of instructor. See description for A\&HL 5205. Course may betaken more than once.

A \& H L 6407. Internship in college teaching in TESOL/Applied Linguistics (1-6)
Professor Beebe Permission of instructor. Occasional opportunities in college programs in areas represented by the department. Students must inquire to see if opportunities are avail able during any given semester. Course may be taken more than once.

## Doctoral preparation

- A\&H L 5501, Research paper: applied linguistics (1-3 each course) OR
- A\&H L 5505, Research paper: TESOL (1-3 each course) OR
- A\&H L 5507, Research paper: TESOL/A pplied linguistics (1-3 each course)
- A\&H L 6501, Certification exam and paper: applied linguistics (1-3 each course) OR
- A\&HL 6505, Certification exam and paper: TESOL (1-3 each course) OR
- A\&HL 6507, Certification exam and paper: TESOL/A pplied linguistics (1-3 each course)
- A\&HL 7501, Dissertation prospectus: applied linguistics (1-2 each course) OR
- A\&HL 7505, Dissertation prospectus: TESOL (1-2 each course) OR
- A\&HL 7507, Dissertation prospectus: TESOL/A pplied linguistics (1-2 each course)
- A\&H L 8900, Dissertation advisement TESOL and Applied Linguistics (0)

TESOL M.A. Program in J apan:
(Code: TLX)
TheTESOL program al so offers an off-campus M.A. in TESOL
in Tokyo for teachers of Eng-
lish in J apan. For those inter-
ested in the off-campus M.A.
in Tokyo, contact:
Dr. Terry R oyce, Program Director
Teachers College
Shinjuku Sane: BIdg 15F 1-22-
2 N ishi Shinjuku, Shinjuku-ku
Tokyo, J apan 160-0023
Tel. 81 (3) 5325-6305
Fax 81 (3) 5325-6306.
columbia@simul.co.jp
www.tc-japan.edu

## TC TESOL Certificate Program (non-degree):

M s. Diane Pinkley, Director of the TC TESOL Certificate Program dp250@colmbia.edu http://www.tc.columbia.edu/ academic/tesol/certificate program.htm

TheTESOL program offers a six-week non-degree TESOL Certificate Program (not to be confused with K-12 certification) for individual s seeking intensive training in the fundamentals of language, second language acquisition, and ESL/EFL methodologies. This program is geared toward students who are considering further formal study in TESOL, toward content teachers in the schools (e.g., science, social studies) who wish to better accommodate the needs of English-language learners in their classes, and toward those who wish to teach English as a foreign language in an international context. Students are introduced to the basic principles and classroom practices rel ated to language teaching, including an overview of linguistics, second language acquisition, language teaching methodologies, materials devolopment, media in the language classroom and language assessment.

## Teaching of Spanish

 (Code: TLS)Program Coordinator: TBA

## D egrees offered:

M aster of Arts (M.A.)*
M aster of Education (Ed.M.)* D octor of Education (Ed.D.)* Doctor of Education in College Teaching (Ed.D.C.T.)*
Doctor of Philosophy (Ph.D.)*
*This program is currently not accepting applications for admission. For updated information about the program, please call the Office of Admission at 212-678-3710.

## Spedal Application <br> Requirements/I nformation:

Functional proficiency in Spanish required for all degree applicants, eval uated by the adviser through interview, correspondence or writing sample.

M .A.: A $n$ undergraduate major in Spanish, or 24 college credits in the language, or the equival ent via examination, by the end of the first semester at Teachers College.

W here the fulfillment of admission requirements is questionable or incomplete at the time of registration, probationary acceptance into the program is often possible. It is al so permissible to begin studies (up to 16 credits) before being formally accepted into a degree program, while admission documents are being processed.
M.A. with Teacher Certification: same as for the M.A. A student in this program who wants to qualify for New York State teaching certification must complete the program and file for certification prior to February 1, 2004. Teachers College is devel oping new programs to meet regulations that go into effect after February 1, 2004. These programs will be outlined in next year's catal og.

Ed.M.: An M.A. degree that includes at least 12 graduate credits in Spanish. Application may be made to transfer up to 30 credits from other graduate studies.

Ed.D.: An M.A. in Spanish or equival ent including 12 grad-uate-level credits in Spanish. Admission should not be confused with doctoral certification. Admission permits a student to study towards a doctorate, usually passing through the Ed.M. degree. (Certification means that the students, after admission to the doctoral program, has successfully completed the formal research paper (A\&HL 5506) and has passed the comprehensive certification examination. These tasks are usually undertaken after some 15 credits of course work.)

Two writing samples, one in English, one in Spanish, must be submitted. Students who are not native speakers of English must present 600 on the TOEFL (English) examination or equivalent (250 computer; 10 English Language Proficiency, etc.). Proficiency in Spanish must be demonstrated.

Ed.D.C.T. (College Teaching): coincident with the Ed.D.

Ph.D.: The M.A. in Spanish, writing samples and demonstrated language proficiency, as for the Ed.D. Application may be made to transfer credits from other institutions.

The Ph.D. requires acceptance by a special University Committee of Columbia, in addition to the usual admission by Teachers College. W here no problem is anticipated, and where the Ed.D. or Ed.D.C.T. constitute acceptable al ternatives in the event of problems exclusi ve to Ph.D. requirements, students admitted to Teachers College may begin
their studies before their documents are examined by the University Committee.

## Program D escription:

The program is concerned both with training high school and college teachers of Spanish and with preparing professionals proficient in a foreign language for non-teaching settings. Courses embrace both methods and content and address the areas of language, culture, and literature.

The Teaching of Spanish program draws upon other programs at Teachers College and the Graduate School of A rts and Sciences of Columbia University to make avail able to students individually formulated programs with emphases in Bilingual Education, Linguistics, English as a Second Language, or more than one foreign language.

Experiential Opportunities: Internships in distance learning, field projects, and teaching community service courses in conversational Spanish for adults are some of the opportunities that add to the flexibility of Spanish language study at Teachers College. Such activities are planned in conjunction with each student's advisor. W eekend workshops, visiting lectures, and special minicourses of two to eight weeks duration are listed in semester bulletins; they provide a variety of special topics and skills for Spanish language majors and teachers in the field.

The following Hispanic literary societies hold their meetings, readings, and special events at Teachers College, enriching the cultural experience of Spanish majors: A cademia N orteamericana de la Lengua; A cademia Iberoamericana de Poesia; A sociación Puertorriqueña de Escritores; Circulo de Poetas y Escritores Iberoamericanos;

Arregni Memorial Foundation; Fundación Cultura H ispánica de los Estados U nidos.

## D egree Requirements:

## Master of Arts

A total of 32-36 points plus a project, research paper or comprehensive examination. Credits from other institutions are not transferable at the $M$ aster of Arts level.

Out of the total, requirements include:

- 15 points in Spanish, including at least one course at the Columbia Graduate School of Arts and Sciences
- 6 points in methods (consult with advisor)
- 3 points in linguistics
- 3 TC courses outside the major

Of the foregoing, three courses are specific requirements for the M.A.

- A\&H L 4049, Spanish methods and class management
- A\&H L 4069, Spanish pronunciation and intonation for teachers, and
- A\&H L 5061, A dvanced Spanish syntax

For teacher certification, A\&HL 4760, Supervised practice teaching (4 points) is required, generally to be taken in the last spring semester at both middle and high school levels. Students seeking certification should consult with the Registrar concerning the latest requirements.

An average of $B$ in all major courses and a comprehensive examination are required for the M.A.

## Master of Education

If the M.A. is not from Teachers College, the student will be expected to include in his Ed.M. program requirements for the M.A. (see above), where
the equivalents do not appear on the transcript of the transferred master's degree. A minimum of 60 points of graduate course work, of which no less than 30 must betaken through Teachers College. A pplication may be made to transfer a limited amount of credits from other graduate studies. After course work, a project, research paper or a comprehensive examination must be completed.

## Doctor of Education

A total of 90 credits beyond the B.A. are required. A pplication may be made for the transfer of credits from other institutions. In addition to the usual content courses, doctoral students are expected to give particular attention to tertulias and other cultural programs sponsored by the Teaching of Spanish Program, as well as to Internship and teaching opportunities at the College.

After doctoral certification (achieved through the Certifica tion Examination and the formal research paper of A\&H L 5506, for 1-3 credits and a letter grade) and most of the course work, preparation for the dissertation includes two "seminars" (no class sessions): A\&H L 6506 which is the determination of the dissertation topic and the writing of a thesis proposal or prospectus (1-3 credits, P or F grade); and A\&H L 7506 which is the presentation and acceptance of the proposal (1-2 credits, P or F grade).

Following the semester of registration in A\&HL 7506, the student must enroll in the noncredit A\&H L 8906, Dissertation Advisement, in which continuous registration is generally required until achievement of the degree.

The dissertation committee consists of two or three faculty members; the doctoral jury will
consist of four professors. Candidates must bein touch with the Office of D octoral Studies to be certain of complying with procedures, deadlines and documents.

## Doctor of Education in the

College Teaching of an Academic Subject

W hile all doctorates are most meaningful for teaching at the college level, this specialized degree suggests to employing institutions a particular expertise. The appropriate emphasis is achieved in the course of study via:
a) at least two courses in H igher Education (catal og ORLD), such as (but not only):
ORLD 4040. The American college student
ORLD 4051. H ow adults learn
ORLD 4053. Facilitating adult learning
ORLD 4820. Cultural diversity training in higher education settings;
plus
b) at least one supervised semester of A \& H L 6406, Internship in college teaching of Spanish, generally arranged on campus, with Distance learning Spanish or Conversational Spanish classes.

It will be anticipated that the dissertation defended for this degree will be especially relevant to adult-level Spanish education.

## Doctor of Philosophy

75 graduate credits. A special Ph.D. examination in a foreign language must be taken at the Graduate School of Arts and Sciences.

N ote Successful completion of course work, the Certification Examination, and the formal research paper (A\&HL 5506) permits the candidate to apply for the M.Phil. status (in lieu
of the doctoral certification for the Ed.D.). Candidates should be in touch with the Office of D octoral Studies to be certain of complying with the latest procedures, deadlines and documents.

Courses: (* $=$ course open to non-majors)
*A\&H L 4049. Spanish methods and class management (2) A "hands-on", practical survey of objectives, strengths and weaknesses of the principal approaches to foreign-language teaching. Special problems of multi-cultural settings will al so be explored. Special fee: $\$ 20$.

A\&HL 4069. Spanish pronunciation and intonation for teachers (3)
Required for the M.A. degree. Conducted in Spanish. Standard and regional Spanish phonology; contrasts with English; pedagogical problems.
*A\&H L 4070. Cultural traditions and achievements in Hispanic America (2-3)
An examination of the values and traditions of H ispanic A merica or of a specific country, as reflected in literature and language, education, government, and fine arts. Topics change; course may be repeated.
*A\&H L 4072. Humanities in the Hispanic world: Selected topics (2-3)
This course is generally conducted in Spanish, but all work is acceptable in Spanish or English. Sample semester topics: J ose Ortega y Gasset; Lessons from Revolutions (M exican, Cuban, others); The Arts in the Golden Age (Spain); Miguel de Unamuno; G abriel Garcia Marquez; D ario and the M odernists.

A\&H L 4760. Supervised teaching of Spanish in secondary schools (4)
Generally taken in the final spring semester at both middle and high school levels. During the practice teaching period a coordinate seminar meets periodically a the College.

A\&HL 5061. Advanced Spanish syntax (3)
Required for the M.A. degree. Conducted in Spanish. Intensive study of contemporary Spanish syntax; contrasts with English; pedagogical implications.

A\&HL 5062. Techniques and problems of translation (Eng-lish-Spanish) (3)
Primarily for Spanish majors and native speakers of Spanish majoring in English or the teaching of English to Speakers of Other Languages. The use of translation in language teaching; translating literature (prose and poetry); considerations of commercial and technical translation.

## A\&HL 5064. The teaching of

 Spanish literature (3)Conducted in Spanish. M ethods and problems in teaching various forms of Spanish literature in the light of aesthetics, stylistics, and the general character of the Spanish or Spanish-A merican culture in which the literature arises. First half of semester devoted to prose; second half to poetry.

A\&HL 5070. Stylistics and writing in Spanish (3)
Conducted in Spanish. Designed to upgrade writing skills as well as assist teachers in the teaching of composition in Spanish.

A\&HL 5565. Advanced seminar in historical Romance linguistics (3)
Permission required. Generally for students beyond the M aster's level. D evelopment of Romancelanguages from the Indo-European family, with major stress on the evolution of the languages in which the seminar students are specializing. Some contrast made with the evolution of English. Independent work assigned to each student in his or her language special ization.

## Doctoral preparation

In order to encourage doctoral students to progress through the appropriate stages, a series of seminars is offered. Progress through these stages usually involves
enrollment in a sequence of seminars such as the following:

- A\&HL 5506. Research paper in the Teaching of Spanish program (1-3)
- A\&HL 6506. D octoral seminar in the Teaching of Spanish Program (1-3)
- A\&HL 7506. Dissertation seminar in the Teaching of Spanish
Program (1-2)
- A\&HL 8906. Dissertation advisement in the Teaching of Spanish program (0)

These seminars are ordinarily undertaken as soon as possible after completing the M. A. degree. Consult program advisor as to which course or courses you should enroll in during any particular semester.

## Independent research, fieldw ork and internships

A\&H L 4906. Research and independent study in teaching of Spanish (1-6)
Research and independent study under the direction of a faculty member. Students work individually or with others.

## A\&H L 5206. Fieldwork in

teaching of Spanish (1-6)
Opportunity for qual ified students, individually or in small groups, to develop and pursue projects, in consultation with an advisor, in schools, communities, and other field settings.

## A\&H L 6206. Advanced fieldwork in teaching of Spanish

 (1-6)Permission required. See description for A\&H L 5206.

A\&H L 6406. Internship in col-
lege teaching of Spanish (1-6)
Opportunities in teaching directmethod conversational Spanish and in projects in distance learning. Students must inquire to see if opportunities are avail able during any given semester.

## Se also:

For additional acceptable courses in teaching methods and practica, see the listing under TESOL program (Teaching English to Speakers of Other Languages) and Bilingual Education.

Chair: J ohn H. Saxman
Location: 1159 Thorndike H all
Telephone N umbers:
Department Secretary, 212)
678-3895;
Department Chair, (212) 6783892
Email: yew4@columbia.edu (Department Secretary)
Email: jhs37@columbia.edu
(Department Chair)
Fax: (212) 678-8233

## Programs:

Movement Sciences and Education
Speech-Language Pathology and Audiology

## Faculty:

## Professors:

Ronald DeM eersman (M ovement Sciences: Applied Physiology)
A ntoinette Gentile (M ovement Sciences: M otor Learning and Control)
John H. Saxman (SpeechLanguage Pathology)

## Adjunct Professors:

Steven H eymsfield (M ovement Sciences: Applied Physiology)
Lorraine R amig (SpeechLanguage Pathology)
X avier Pi-Sunyer (M ovement Sciences: Applied Physiology)
Jaclyn Spitzer (Audiology)
Richard Stein (M ovement Sciences: Applied Physiology)
R onald Tikofsky (SpeechLanguage Pathology)

## Associate Professors:

Andrew M. Gordon (M ovement Sciences: M otor Learning and Control)
Peter Gordon (SpeechLanguage Pathology)
H onor O'M alley (Audiology)
Patricia M. Sweeting (SpeechLanguage Pathology)

## Adjunct Associate Professors:

Sergei Yu Aleshinsky (M ovement Sciences: M otor Learning and Control)

Dympna G allagher (M ovement Sciences: A pplied Physiology)
Judith Gravel (A udiology)
Terry K aminski (M ovement Sciences: M otor Learning and Control)
J. J oan Sheppard (SpeechLanguage Pathology)
K aren B. W exler (SpeechLanguage Pathology)

## Assistant Professors:

J ason H. M ateika (M ovement Sciences: A pplied Physiology)
Rupal Patel (Speech-Language Pathology)

## Adjunct Assistant Professors:

M ark Budde (Speech-Language Pathology)
Roger A. M uzii (M ovement Sciences: M otor Learning and Control)
Susan Goldfein (SpeechLanguage Pathology)

## Instructors:

Cynthia S. Cohen (SpeechLanguage Pathology)
Catherine Crowley, Distinguished Practitioner (SpeechLanguage Pathology)
R eneé Fabus (Speech-Language Pathology)
Julie Fineman (M ovement Sciences: M otor Learning and Control)
M aria Grigos (SpeechLanguage Pathology)
Carol M. K aufman (SpeechLanguage Pathology)
Iris A. K Iatsky (SpeechLanguage Pathology)
Sally McGoldrick (M ovement Sciences: M otor Learning and Control)
Michael Soupios (M ovement Sciences: M otor Learning and Control)
Carol Tompkins (SpeechLanguage Pathology)

## Clinical Staff:

Teresa R. Boemio (Audiology) $K$ athy G ross (Speech-Language Pathology)

For information about faculty and their schol arly and research interests, please refer to the
"Faculty" section of the Catalog.

## Departmental mission:

The Department of Biobehavioral Studies offers programs that derive educational and clinical applications from an understanding of the biological processes underlying human communication, movement, and their disorders. An understanding of the normal biobehavioral processes is applied to clinical practice. The scientific knowledge obtained from studying each of these specialized fields is used to enhance the educational, adaptive and communi cative capabilities of individuals with normal and impaired abilities across the life span.

Graduates of our master's programs assume professional roles in educational, heal th-rel ated, and community agency settings as speech-language pathologists, exercise physiologists, fitness trai ners, cardiac rehabilitation therapists, occupational therapists, and physical therapists. As these professionals often work in
interdisciplinary teams, the D epartment facilitates opportunities for students to interact across professional boundaries.

Our Doctoral graduates are prepared for university faculty positions, administrative positions in field-based settings, and may al so pursue careers in research.

The Department maintains clinics and laboratories to support the teaching and research components of the programs. These facilities include the Edward D. M ysak Speech-Ianguage and H earing Center, as well as laboratories in applied physiology, motor learning and control, kinematics, speech
physiology and acoustics, and psychoacoustics.

The master's degree program in Speech and Language Pathology is accredited by the Council on A cademic A ccreditation of the A merican Speech-Lan-guage-H earing Association (ASH A). The Edward D. M ysak Speech and Hearing Center is accredited by the Professional Services Board of ASH A.

## Courses:

## BBS 4032. Neuroscience of

 human speech and language (2)Faculty. This course combines lectures and laboratory learning to provide an understanding of the neuroscience of human communication.

## BBS 4043. The human nervous

 system (3)Faculty. A natomy and basic physiology of the central and peripheral nervous systems. Reflex systems, sensorimotor processes and the special senses; introduction to neuropathology and clinical neurology as related to rehabilitation.

## BBS 4050. Applied biomedical instrumentation (3)

Faculty. Permission required. Electronic instrumentation for detection and characterization of physiologic phenomena. Basic elements of instrumentation arrays, including transduction, signal conditioning, and output displays. Evaluation of displacements, force EM G, ECG, and ventilatory parameters. $H$ as special relevance to students in motor learning and control, and applied physiology.

## BBS 4065. Biological and behav- <br> ioral basis of sleep (3)

Professor M ateika. This course is designed to introduce students to the biological and behavioral mechanisms responsibl e for sleep, dreaming, and attention. Lab fee: $\$ 30$.

BBS 5068. Brain and behavior I: Communication in the nervous system (1-2)
Professor G ordon. An introduction to communication within the nervous system and functional brain neuroanatomy. Examination of
chemical circuits in brain and associated pathologies, such as Parkinson's di sease, Tourettes, schizophrenia, depression and anxiety.

## BBS 5069. Brain and behavior II: Perception, emotion memory and cognition (1-2)

Professor Gordon. An introduction to brain processes associated with perception, emotion, memory and cognition. Consequences of damage to these neurobehavioral processes are examined through reading and discussion of clinical case studies.

## BBS 5060. N euromuscular responses and adaptation to exercise (2)

Professor Mateika. A review of the physiology of muscle contraction in addition to in-depth discussion of topics rel ated to the field which include, the relationship between muscle activation and respiration during exercise, muscle fatigue, eccentric versus concentric contractions and adaptation to strength training.

## BBS 6070. Neural basis of respiration (3)

Professor M ateika. This course is designed to expose students to topics in respiratory control which relates to the fields of motor learning and control, exercise physiology, and speech. Topics include posture, bal ance and breathing, respiratory control of upper airway muscle activity, neural basis of exercise hyperpnea.

## Se also:

MSTC 5000. Neurobiology of consciousness, constructivism and information processing (2-3)

## Program in M ovement

Sciences and Education

## Applied Physiology

(Code: TRA)
Program Coordinators: Professors DeM eersman and M ateika

## M otor Learning and Control

(Code: TRM)
Program Coordinators: Professors Gentile and Gordon

## Physical Education

(Codes: TRP \& TPC)
See offerings in the Department of $H$ ealth and Behavior Studies.

See al so: The interdepartmental program in Applied Physiology and $N$ utrition in the Department of H ealth and Behavior Studies

## D egrees offered:

M aster of Arts (M.A.)
M aster of Education (Ed.M.)
D octor of Education (Ed.D.)

## Special Application Requirements/I nformation:

 W hile students have come from a variety of fields, the following backgrounds are most appropriate: movement sciences, exercise science, physical therapy, occupational therapy, physical education, athletic training, biology, nutrition, nursing, and psychology. Students with strong academic records, who have deficiencies in their science backgrounds, may be admitted with the understanding that these deficiencies will be remedied with appropriate courses. W hen possible, it is strongly recommended that prospective students communicate with an academic advisor to discuss program plans prior to admission.Interviews are required for applicants planning to pursue the doctoral program (although exceptions are made when extensive travel is necessary). Students intending to pursue doctoral study are strongly encouraged to make an appointment to visit the College for at least one day to meet with faculty and doctoral students, to audit a course or seminar, and to become acquainted with research areas and resources.

Students seeking admission to the doctoral program are customarily admitted to the

Ed.M. for at least one year. Formal admission to the doctoral program is based upon level of achievement in course work and seminars; demonstration of research competence; a research direction compatible with faculty and laboratory resources; and signs of professional promise. A list of current research projects in applied physiology and in motor learning and control can be obtained from the secretary in the M ovement Sciences office.

Applicants are reviewed on an ongoing basis throughout the academic year. H owever, consideration for general and minority scholarship awards is given to those applicants who meet the priority deadline. Prior to formal admission, enrollment in up to 8 points of study as a non-matriculated student is permitted.

## Program D escription:

There are three specialties in M ovement Sciences:

A pplied physiology deals with the physiological effects of exercise, training, and arousal (autonomic nervous system functions, such as, cardiovascular processes and sleep regulation). A pplication of study in applied physiology is made to the improvement of health and physical fitness. Interaction with nutritional factors is also emphasized. Professionals can gain insight into the role of exercise in diagnosis and treatment of health problems of interest to them.

In motor Iemrning and control, study focuses on the behavioral, biomechanical and neural bases of development, acquisition and performance of functional movement skills. Acquisition of skill is examined over the life span in typically developing and impaired individuals. M ovement anal ysis is used to elucidate the neuromotor con-
trol processes underlying skilled performance in everyday functional behaviors, sport, and dance. The teacher or thera pist's role in facilitating skill learning and performance is emphasized.

Physical education has along and distinguished history at Teachers College. See offerings in the Department of H ealth and Behavior Studies for a fuller description.

Each of these specialties has
five components, including:

1. Substantive study of theory and research as embodied in lecture and laboratory courses.
2. Development of clinical or educational skills in labora tory and fieldwork courses.
3. Research training to enable students to read and interpret original research and to carry out educational, clinical or laboratory research.
4. Seminars to discuss theory and research, identification of research problems, and clinical/educational applications.
5. Elective courses to meet spe cific student needs which may betaken throughout the College and University in such areas as anatomy, biology, business, chemistry, computer science, health education, higher and adult education, neurosciences, nutrition, physiology, psychology and science educa tion. A list of recommended elective and related courses is avai lable to students in the M ovement Sciences office.

## D egree Requi rements:

## Master's Degree Programs

For the M.A. and Ed.M. programs, students have two options. They may specialize in one of the three areas offered within M ovement Sciences or, in consultation with an advisor, they may arrange a flexiblydesigned program of study cut-
ting across specialization in the movement sciences which will meet their professional needs and academic interests.

## M aster of Arts

The M.A. program emphasizes bridging between the movement sciences and clinical or education practice. The objective is to develop a comprehensive and coherent view of the ory and research that can be applied to practice within the student's professional field. The program requires 32 points of study. A culminating project is required for the M.A. and may involve: (a) a scholarly review of research and theory within a topical area drawing application to educational or clinical practice, or (b) a basic or applied research report. For initial advisement and approval of M.A. projects, students must consult with Professors G ordon or M ateika. The M .A. program can be completed in 12-18 months of full-time study or two to three years of part-time study (depending on the student's other responsibilities).

Specific requirements include:

- BBS 5068, Brain and behavior I: communication in the nervous system (2)
- BBS 4060, N euromuscular response and adaptation to exercise (2)
- BBSR 5582, Research design in the movement sciences (3)
- Substantive study in move ment sciences including offerings in physical education in the Department of H eal th and Behavioral Studies (minimum 6 points)
- One laboratory course in M ovement Sciences (minimum 2-3 points)
- Seminars or tutorials (minimum 2-3 points)
- Individual program in move ment sciences (additional substantive, laboratory, fieldwork or seminar study) or in related areas outside of
movement sciences (minimum 6 points)
- Electives with provision that the total program includes at least three courses outside of the movement sciences.


## Master of Education

The Ed.M. program provides for advanced study in the movement sciences and for individual ly designed study to meet the student's professional needs and interests. The program requires 60 points of graduate study. Students can focus on: (a) preparation as a "scholar of practice" able to translate research and theory into appropriate clinical or educational strategies; (b) preparation as a clinical instructor, clinical or educational supervisor or applied investigator; or (c) preparation for study towards the doctoral degree.

All Ed.M. students must complete a final, culminating project involving either (a) an applied research report which can focus on clinical or educational issues, or (b) a laboratory research paper. Students intending to continue study towards the doctoral degree should arrange their Ed.M. program to include core courses required for doctoral specialization in applied physiology or in motor learning and control.

For the M aster of Education Program, specific requirements for courses, or equivalents transferred from prior graduate study, are:

- BBS 4060, N euromuscular response and adaptation to exercise (2)
- BBS 5068, Brain and Behavior I: Communication in the nervous system (2)
- BBSR 5582, Research design in the movement sciences (3)
- Research preparation: minimally one course selected from BBSR 5504, 5505, 5595 (2-3)
- Substantive study in the movement sciences including offerings in physical education in the Department of Health and Behavioral Studies (minimum 15 points)
- Two laboratory courses: (minimum 5-6 points)
- Seminars or tutorials: (minimum 5-6 points)
- Individual program in move ment sciences (additional substantive, laboratory, fieldwork or seminar study) or in related areas outside of movement sciences (minimum 12 points)
- Electives (12)


## Doctoral Programs

Specialization in applied physiology or in motor learning and control is required for the doctoral program. W ithin each area of special ization, students prepare course and laboratory projects, research papers and other material s appropriate for their projected professional activities. The program requires 90 points of graduate study.

The doctoral program prepares individuals for leadership roles in the movement sciences and in the fields of physi cal education, nutrition and rehabilitation (occupational, physical and respiratory therapy). Graduates have assumed positions as faculty members and program directors in universities and colleges; as researchers in educational, clinical or biomedical settings; and as administrators, supervisors or consultants in clinical or educational facilities. Preparation focuses advanced study and research training within the specialization.

## D octor of Education (Applied Physiology)

The goal of the applied physiology specialization is to prepare doctoral students to pursue scholarly and scientific work. Students are expected to contribute significantly to the completion of at least one research project prior to initiation of their dissertation proposal. The skills devel oped during completion of this project will enable students to carry out their dissertation project independently. Students are encouraged to present the work leading up to the dissertation proposal at national meetings and to contribute to the publication of results in peer reviewed journals.

Research may be completed in the applied physiology laboratories at Teachers College or in the student's own clinical/ research setting. If the work is completed outside of Teachers College, students are expected to demonstrate that they have contributed significantly to the completion of the required projects. All work (either at Teachers College or outside of the College) must be developed and completed in conjunction with advisement of M ovement Sciences faculty.

Students are expected to commit themsel ves to their graduatestudies. A minimum commitment entails engaging in research activity related to the doctoral degree three days per week (at least two weekdays). This minimum commitment will ensure that advisement, research activities and course work can be completed in an efficient and timely fashion.

For the doctoral program with spe calization in applied physiology, specific course requirements (or equivalents transferred from prior graduate study) include:

- BBS 4060, N euromuscular response and adaptation to exercise (2)
- BBS 5068, Brain and behavior I: communication in the nervous system (2)
- BBSR 4065, Biological and behavioral basis of sleep (3)
- BBSR 4095, Applied physiology I (3)
- BBSR 4195, Applied physiology laboratory I (3)
- BBSR 5095, Exercise and health (3)
- BBSR 5194, Applied physiology laboratory II (3)
- One additional laboratory course: BBSR 5195 or BBSR 5055 (3)
- BBSR 5596, Topics in applied physiology (3)
- BBS 6070, $N$ eural basis of respiration (3)
- Three courses (9) sel ected from BBSR 4050, BBSR 4055, BBSR 4060, BBSR 4005, BBSR 5028, BBSR 5055, BBSR , 5057, BBSR 5200, M ST C 4054, M STC 5052, BBS 4043, HBSS 5010, H BSS 5011, H BSS 5034
- BBSR 5582, Research design in the movement sciences (3)
- Statistics sequence minimally two courses (6 points) from: HUDM 4122, HUDM 5122 and HUDM 5123
- BBSR 5595, Research seminar in applied physiology (typically, students enroll each semester until degree requirements are completed) (3 points each semester)


## D octor of Education (Motor Learning and Control)

In the preparation of doctoral students, the goal is to develop those competencies necessary to pursue scholarly and scientific work and to formulate strategies to enhance professional practice.

Research training uses an apprenticeship model. Students work closely with faculty throughout their preparation: initially as apprentices with access to considerable advisement, subsequently as collaborators, then progressing to a position as independent researchers.

Typically, the dissertation research is an extension of one or two prior studies. Often, research leading up to the dissertation is presented at national meetings or is published in professional journals.

In addition to substantive study and research preparation, students are expected to design an individual program representing their research area and professional concerns. Such preparation requires a significant commitment to graduate study. Doctoral students (and Ed.M. students planning to pursue the doctoral degree) are required to be engaged in research at least three days per week (on- or off-site) and be avail lable for advisement at least two mornings or afternoons.

F or the doctoral program with spe cialization in motor learning and control, specific course requi rements (or equival ents transferred from prior graduate study) are

- BBS 5068, Brain and behavior I: communication in the nervous system (2 points)
- BBS 4060, N euromuscular response and adaptation to exercise (2 points)
- BBSR 4060, M otor learning (2-3 points)
- BBSR 4050, A nal ysis of human movement (3 points)
- BBSR 4150, M otor learning Iaboratory (2 points)
- BBSR 4151, Laboratory methods in biomechanics (3 points)
- BBSR 5860, M ovement sciences conference (enrollment required during each year of study towards the Ed.D.,
minimum 3 points, other enrollments can be noncredit)
- Three enrollments in BBSR 6563 Conference seminar (6 points)
- Four courses (12 points) selected from: BBSQ 4047, BBSR 4055, BBSR 4070, M STC 5000, BBSR 5028, BBSR 5050, BBSR 5055, BBSR 5057, BBSR 5251.
- Three topical seminars (9 points) selected from: BBSR 5596, BBSR 6263, BBSR 6564, BBSR 6565, BBSR 6571
- Statistics sequence minimum (9 points): H U DM 4122, HUDM 5122 and HUDM 5123
- BBSR 5582, Research design in the movement sciences (3 points)
- BBSR 5151, Analysis of biomechanical signals or an approved course in computer programming (3 points)
- BBSR 5504, Research training in motor learning and control (2-3 points each semester, continuous enrollment required until completion of degree requirements, typically 18 points)
- Individual program and electives (22 points)

Graduate Study/Clinical Practice Traineeships are available for occupational and physical therapists enrolled in or admitted to degree programs in M ovement Sciences. They are offered in collaboration with several clinical agencies located in the metropolitan $N$ ew Y ork area, that provide services to diverse groups including pediatric, adult and geriatric clients.

These trai neeships carry an award of $\$ 32,000$ in stipend and tuition benefits. The instructional staff in M ovement Sciences provides clinical supervision. A case study approach is used to directly bridge between substantive study and clinical
practice. For more detailed information, contact the coordinator of Clinical Traineeships at 212-678-3325.

In addition to scholarship awards, advanced students in the Ed.M. or Ed.D. programs may have an opportunity for funding by serving as research, laboratory or teaching assistants, conference coordinators or through appointment as instructors in basic courses.

## Courses:

## Substantive study

BBSR 4005. A pplied anatomy and biomechanics (3)
Faculty. Topics include: gross anatomy and function of human skeletal and muscular systems, mechanics of human movement, and analysis of skills in dance and physical education. Designed primarily for students without a prior course in anatomy or biomechanics. Students will be expected to participate in a laboratory offered immediately preceding the scheduled class time. Lab fee: $\$ 50$.

## BBSR 4050. A nalysis of human

movement (3)
Professor G ordon. Permission required. Covers the principles and techniques required to anal yze human movement, which can be used to develop practical research questions. Quantitative and qualitative techniques for anal ysis of movement are discussed in relation to the study of learning, motor control, motor development, and motor impairments. Lab fee: $\$ 50$.

## BBSR 4055. N euromotor

processes (3)
Professor Gentile. Prerequisite: BBSQ 4043 or equivalent. An examination of the structure and function of the nervous system with specific reference to adaptive motor control.

## BBSR 4060. Motor learning

 (2-3)Professor Gentile. Study of factors relating to the acquisition and performance of motor skills. Includes review and analysis of appropriate research findings. Co-requisite: BBSR 4861, Section 1.

BBSR 4070. Introduction to the psychosocial study of human movement (2-3)
Dr. Muzii. A general overview of knowledge and theory pertaining to the psychosocial dynamics of behavior in sports and dance.

## BBSR 4090. Physical fitness, weight control, and relaxation

 (3)Dr. Gallagher. Contributions of exercise to human well-being throughout life. Classroom, gymnasium, and laboratory experiences included. Designed for teachers, counsel ors, and others who desire an introduction to basic concepts of physical fitness.

BBSR 4095. Applied physiology I (3)
Professor DeM eersman. Prerequisite: a course in human physiology. Physiological bases of exercise. Lectures concerning the effects of exercise on the major physiological systems (cellular, cardiovascular, thermoregulatory, pulmonary, renal, body fluids, hormonal).

## BBSR 5028. Motor development

 (2-3)Professor Gentile. Review and analysis of theoretical models and experimental research related to development and performance of motor skills throughout the life span.

BBSR 5050. N europhysiology of motor control and electromyography (3)
Professor M ateika. Advanced topics dealing with the experimental and clinical use of electromyography. Topics will be integrated with the kinematics of movements being observed. A laboratory project using EM G will be required. Lab fee: $\$ 50$.

BBSR 5055. Bases of motor control systems (3)
Professor Gentile. Study of control processes subserving the coordination of movement.

## BBSR 5057. Movement disor-

 ders (3)Professor Gordon. Study of the pathophysiology of various movement di sorders and the resulting motor impairments.

BBSR 5095. Exercise and health (3)

Professor D eM eersman. Prerequisite: BBSR 4095 or equivalent. The role of exercise in diagnosis, prevention, and rehabilitation of health problems such as cardiovascular di sease, pulmonary disease, diabetes, obesity, and stress. Interactions with nutrition are stressed.

## BBSR 5098. Biochemistry of

 exercise (3)Professor D eM eersman. Enzymatic, hormonal, and metabolic responses to exercise. Interactions of exercise and nutrition. Application to exercise performance and health concerns such as carbohydrate metabol ism, di abetes, cardiovascular disease, lipoprotein profile, pregnancy, body composition, and osteoporosis.

## Laboratory Courses

BBSR 4151. Laboratory methods in biomechanics (3)
Dr. K aminski. Permission required. Enrollment limited. Prerequisite: BBSR 4050. Students develop technical skills in the application of biomechanics to the study of movement behavior including video-based data collection and computer-based kinematic anal ysis. Students design and conduct a pilot research study using biomechanical analysis of a functional movement. Special fee: $\$ 75$.

BBSR 4161. Motor learning laboratory (1-2)
Faculty. An introduction to qualitative and quantitative anal ysis of movement and action during acquisition of functional skills.

## BBSR 4195. Applied physiology

laboratory I (3)
Professor DeM eersman and Lab Assistant. Co- or prerequisite: BBSR 4095. The discussion and practice of techniques for collection and analyses of physiologic data (calibration, basal metabolism, body composition, static pulmonary functions, VO2 measurements, physiography). Lab fee: $\$ 100$.

BBSR 5151. Introduction to the analysis of biomechanical signals (3)
Professor Gordon. Introduction to the concepts and techniques used in the anal ysis of biomechanical signals. Students will apply these techniques to actual kinematic, kinetic, and electromyographic data using the LabVIEW programming language.

BBSR 5194. Applied physiology laboratory II (3)
Professor M ateika and Lab Assistant. The discussion and practice of techniques for collection and anal ysis of physiol ogic data (strength testing, electromyography, computerized data acquisition). Lab fee: $\$ 100$.

## BBSR 5195. Advanced applied physiology laboratory (3)

Professor DeM eersman. Prerequisite: BBSR 5194. Introduction of advanced physiologic measurement techniques and concepts. Included are indirect calorimetry, spectrophotometry, vascular volume dynamics, autonomic reflexes, thermoregulation, noninvasive cardiac output, computerd data plethysmography, tonometry, acquisition and post-acquisition anal yses. Lab fee: \$100.

## Seminars and Conferences

BBSR 4865. Tutorials in motor learning and control (1-3 or noncredit)
Faculty. Review of theoretical and experimental studies in motor learning and motor control. Topics to be announced.

## BBSR 5596. Topics in applied

 physiology (3)Professor M ateika. Prerequisite: BBSR 5095 or equival ent. A seminar format used for discussion of advanced topics. Open only to doctoral and advanced master's students.

BBSR 5860. Movement sciences conference (1 or noncredit) Faculty. Topics and speakers are announced in a separate brochure which may be obtained from the department office.

BBSR 6562. Review and analysis of clinical literature (3)
Faculty. Review and anal ysis of literature in rehabilitation (physical therapy, occupational therapy) and special education, with reference to theory and research in the neurosciences and motor control.

BBSR 6563. Movement sciences conference seminar (2)
Faculty. Offered in conjunction with BBSR 5864. Review and analysis of research related to conference topic.

BBSR 6564. Advanced topics in neuromotor processes (2-3)
Faculty. Topic changes annually.

## BBSR 6565. Seminar in motor

 learning and motor control (3) Professor Gentile. Review and analysis of theories and research in a selected topical area pertaining to acquisition of skill or control processes underlying skilled performance. Re-enrollment is permitted as topics vary.
## BBSR 6571. Research seminar in the psychosocial study of human movement (3)

Dr. M uzii. Examines research topics, problems, design, and methodologies in the psychosocial study of human movement.

## Fieldw ork

BBSR 5200. Fieldwork in movement sciences (1-4)
Permission required. For advanced students prepared to investigate problems.

## BBSR 5251. Fieldw ork seminar in motor learning and motor

 control (1-2)Faculty. A pplications of theory/ research to therapeutic or educational practice for students in field-based settings.

BBSR 6201. Supervision of educational or clinical practice in the movement sciences (0-2) Professor Gentile. Permission required. Co-requisite: actual supervisory experience during that semester. For doctoral students in the movement sciences. Fieldbased experiences in the guidance of therapists or educators engaged in applying the movement sciences to clinical practice.

## Research Preparation

BBSR 4900. Research and independent study in movement sciences and education (1 or more) M aster's degree students undertake research and independent study under the direction of a faculty member.

BBSR 5504. Research training in motor learning and control (1-3)
Professors Gentile, G ordon, and K aminski. Permission required. A competency-based approach to the preparation of researchers in the areas of neuromotor control and perceptual-motor processes. Several learning experiences are offered each semester, involving lectures, Iaboratory practica, seminars and individual research advisement.

BBSR 5505. Tutorial in research conceptualization (2-3)
Faculty. Formulation and design of field-based studies and library research projects. Intended for master's (M.A. and Ed.M.) students.

BBSR 5582. Research design in the movement sciences (3) Faculty. Basic concepts of research design and statistical anal ysis. Students learn to interpret articles and design projects.

BBSR 5595. Research seminar in applied physiology (3)
Section I: Professor DeM eersmanSection II: Professor M ateika M.A. students carrying out research-culminating projects enroll in this course near the end of their course of study to discuss and present their projects. Ed.M and doctoral students enroll at least once in connection with each research project they complete.

BBSR 6900. Supervised independent research in movement sciences (1-9)
For advanced students who wish to conduct research under faculty guidance.

BBSR 7500. Dissertation seminar in movement sciences (0-3)

BBSR 8900. Dissertation advisement in movement sciences (0) Advisement on doctoral dissertation. Fee: to equal 3 points at current tuition rate for each term. For requirements, see section in catalog on Continuous Registration for Ed.D. degree.

## Speech-Language

Pathology and Audiology (Code: TQ)
Program Coordinator: Professor John H. Saxman

## Speech and Language Pathology

(Code: TQC)

## Audiology

(Code: TQE)

## D egrees offered:

## Speech-language Pathology

M aster of Science (M.S.)
Doctor of Education (Ed.D.)
Doctor of Philosophy (Ph.D.)

## Audiology

M aster of Education (Ed.M.)* Doctor of Education (Ed.D.)* Doctor of Philosophy (Ph.D.)* *These programs are currently not admitting new students.

## Special Application

Requirements//I nformation: Ideally, candidates should have a broad liberal arts background with concentration in the biological and behavioral sciences

Foundation courses that provide information relating to normal speech, language and hearing processes; introductory level courses in speech, Ianguage, and hearing disorders; and, appropriate related areas required for the master's program can be taken as a matriculated graduate student at Teachers College or at another accredited institution.

Students with undergraduate preparation in communication sciences and disorders typically have completed the foundation courses. Students who choose to
take the foundation work at Teachers College should plan on extending their master's program as appropriate, usually one semester and a summer session.

Students from diverse academic and experience backgrounds are routinely accepted into the program and encouraged to apply.

The M aster of Science degree in Speech and Language Pathology accepts applicants for the Fall semester only, and does not accept applications after the priority deadline.

A student in this program who wants to qualify for N ew York State teaching certification must complete the program and file for certification prior to February 1, 2004. Teachers College is developing new programs to meet regulations that go into effect after February 1, 2004. These programs will be outlined in next year's catal og.

D octoral candidates should have completed a professional master's degree in communication sciences and disorders prior to matriculation. U nder exceptional circumstances, students with a master's degree in a closely rel ated field will be considered for admission.

In addition to the regular admission requirements, doctoral applicants must al so submit:

D octor of Education (Ed.D.) At least one letter of recommendation specifically related to the appli cant's professional ability and potential. W henever possible, this should be from a licensed or certified speech and language pathologist or audiologist familiar with the applicant's area of specific interest. A paper, no more than 5 or 6 pages in length, describing a major clinical problem in need of investiga-
tion or clarification in the applicant's area of interest.

D octor of Philosophy (Ph.D.) If possible, at least one letter of recommendation rel ated to the applicant's research potential by a professional familiar with the applicant's interests and aptitudes.

A paper, not more than 5 or 6 pages in length, describing a major research need in the applicant's area of interest. Completion of at least 90 credits in liberal arts courses.

## A II D octoral A pplicants

D octoral applicants are strongly urged to discuss their plans with one of the department's faculty before completing the application process. A fter all credentials have been received in the Admission Office, an interview will be arranged by the Department's Doctoral Admission and Monitoring Committee.

## Program D escription:

The programs in Speech and Language Pathology and Audiology offer advanced education and training in the processes of individual human communication (speech, hearing, language), disorders of human communication, and remedial procedures for such di sorders. Emphases and interests of the program are reflected in the work of the following faculty: Professor O'M alley-psychoacoustics, including frequency selectivity, two-tone suppression, auditory spectral resolution, pitch, and auditory temporal acuity; Professor Saxman-speech and language development and disorder; Professor Sweeting-vocal tract function and dysfunction and life span development of speech processes; Professor Gor-don-language acquisition, psycholinguistics, cognitive development in infants and children. Professor Patel- augmentitative and augmentative
communication, acoustics of speech production, technologyaided human communication.

Programs leading to the M.S., Ed.M., Ed.D., and Ph.D. degrees in Speech and Language Pathology or Audiology (doctoral only) prepare graduates for positions in a variety of professional settings: school systems, community speech and hearing centers, rehabilitation centers, hospital clinics, private practice, state departments of education, health departments, federal agencies, and colleges and universities.

Because of the program's central concern with the processes of individual human communication and their disorders and management, it has special interests in, and relations with, the fields of psychology, linguistics, anatomy and physiology, acoustics, special education, medicine, and dentistry.

In turn, many of the program's courses in normal and disordered speech and hearing processes contribute to professional preparation in speech and language arts, kindergarten through secondary school education, special education, remedial reading, psychology, and various heal th rel ated professions, including physical therapy, occupational therapy, dental hygiene, nursing, and hospital administration.

## D egree Requirements:

## M aster of Science in SpeechLanguage Pathology

This degree program leads to professional licensing, professional certification, and if el ected, to teacher of speech and hearing handi capped certification. Students are required to complete academic and practice requirements for the N ew York State License in SpeechLanguage Pathology and the Certificate of Clinical Compe
tence offered by the A merican Speech-Language-H earing A ssociation to be eligible for graduation with the $M$ aster of Science D egree.

This requirement means that it is the responsibility of the student to satisfy the required 75 credits of course work in appropriate specified areas for the ASH A CCC-SP before completion of the M.S., either through course work taken at Teachers College or through an approved distribution of courses completed at Teachers College and at another regionally accredited institutions (including undergraduate course work).

This requirement is in addition to the specific courses and minimum credits required by the Teachers College faculty to satisfy the M aster of Science degree requirements. Although course credits from other institutions are not transferred to the students program, courses taken el sewhere and approved by the student's academic advisor as equivalent to course work required to satisfy the ASH A certification requirements or selected departmental requirements do not need to be repeated at Teachers College.

Teachers College requires a minimum of 32 points for the M aster of Science D egree. The minimum number of points for completion of the Program in Speech-Language Pathology is approximately 50 , including practicum courses. Students who have no previous applicable coursework in the field typically require 74 points to complete the requirements for graduation.

Students admitted to the program with undergraduate majors in speech and language pathology or with substantial prior coursework can expect to complete the program within
two cal endar years (four semesters and two summer sessions) of full time study.

Students admitted with little or no prior coursework can expect to complete the program in two and one-half calendar years of full-time study. Some accommodations can be made for part-time study during a portion of the program, but students must be enrolled in practicum experiences
(BBSQ 5331/2) from their first semester and in all subsequent semesters of their enrollment.

A cademic and Practicum
Requirements
Basic Human Communication Processes
In the area of normal human communication processes, students are required to take two courses in each of three areas of speech, language, and hearing, including:

- anatomic and physiologic bases
- physical and psychophysical bases
- linguistic and psycholinguistic aspects

These courses will total at least 15 points. This coursework may betaken at either the undergraduate or graduate level. Students with an undergraduate degree in communica tion disorders will have taken some or all of this coursework as part of their undergraduate preparation.

M aterial covered in the following courses must have been included as part of the student's prior coursework or must betaken at Teachers College:

- BBSQ 4030, Physiologic phonetics (3)
- BBSQ 4031, Articulatory, vocal and auditory mechanism (3)
- BBS 4032, N euroscience of human speech and language (2)
- BBS 5069, Brain and behavior I: communication in the nervous system (1-2)

The remainder of the normal human communication processes requirement can be fulfilled through a variety of course options such as: BBSQ 5044 Speech and language perception and processing; A\&H L 4101 Phonetics and phonology; H BSE 4079 Language devel opment and habilitation; HUDK 5024 Language development; HUDK 5090 The psychology of language and reading; HUDK 5091 Applied psycholinguistics; A \&H L 4000 The study of language; A\&H L 4003 A pproaches to linguistic analysis; ITSL 4024 Linguistic foundations of bilingual/bicultural education; and other courses listed in the program materials.

## Professional Course W ork

 In professional area coursework, students are required to take 7 points in hearing disorders and a minimum of 30 points in speech-language disorders. The professional area coursework in speech-language pathology must be at the graduatelevel and must include a minimum of 3 points in courses within the program that are not part of the core requirements. In addition, only 3 points of practicum coursework can be used to fulfill the 30-point professional area requirement. Only courses for which a grade of at least a C has been earned can be used to fulfill these requirements.CoreCourseW ork The following core courses must be taken at Teachers College or the equivalent course material must have been taken as part of a student's prior coursework and approved by the student's academic advisor:

Speech-Language Pathology

- BBSQ 4040, Speech and language disorders (2)
- BBSQ 5111, Tests and testing procedures (3)
- BBSQ 5112, Articulation disorders (3)
- BBSQ 5113, Voice disorders (3)
- BBSQ 5114, Stuttering: theory and therapy (3)
- BBSQ 5115, Language disorders in children (3)
- BBSQ 5116, Language disorders in adults (3)

H earing

- BBSQ 4042, Audiology (2-3 M ajors take course for 2 points only)
- BBSQ 5125, Clinical approaches to aural rehabilitation (3)
- BBSQ 5129, Audiological concepts and principles (1)
- BBSQ 5343, H earing measurements (1)

A dditional Course W ork
Students are required to take a minimum of 3 points of coursework within the program in Speech-Language Pathology in addition to the required core courses. Some additional courses are offered yearly, while others are offered on a less regular or a onetime basis. There are al so seminars that are open to advanced master's students. The following is a list of additional courses:

- BBSQ 4046, N on-speech communication: al ternative \& augmentative systems (2)
- BBSQ 5118, Cleft pal ate (2-3)
- BBSQ 5119, Alaryngeal speech (1)
- BBSQ 5130, A ssessment \& intervention for dysphagia (2)
- BBSQ 6111, N eurogenic speech disorders (2-3)
- BBSQ 4047, Early motor behaviors in children: normal and abnormal (3)
- BBSQ 5117, Cerebral palsy and speech habilitation (3)
- BBSQ 6111, Current issues and practices in speechlanguage pathology (1-3)

Research M ethods
Students are required to take BBSQ 5940, Evaluating research in speech-language pathology, or to have previously taken equivalent coursework. This course is offered during the fall term.

Out-of-D epartment Courses Students at Teachers College are required to take 2 courses in departments other than their major program area. These courses may be used to fulfill the requirements for coursework in normal human communication processes or may be in related professional areas. Out-of-department courses may be taken pass/fail. Currently, any advisor approved non BBSQ course meets the "out of department" requirement.

Practicum Requirements

- Therapy practicum. Students enroll in Practicum (BBSQ 5331/2) starting with their first semester at Teachers College and continue in Practicum during each subsequent semester, including at least one summer (BBSQ 5315/6). A ssignment and participation in each of these Practicum experiences is determined by and at the discretion of the Clinic Program Coordinator.

Students continue in Practicum until a satisfactory level of clinical competence appropriate for entry into the Clinical Fellowship Year has been demonstrated. Students without background in the field typically enroll for six or seven semesters of Practicum, while students with background tend to enroll for five or six semesters of Practicum. Students accrue a minimum of 350 supervised clinical hours within a minimum of 3 service
sites in addition to the on-campus Edward D. Mysak Speech and H earing Center. These field placements typically include a school site, a hospital, and a rehabilitation site.

- Diagnostics. Students are required to enroll in one semester of diagnostic Practicum (BBSQ 5312). This Practicum experience follows BBSQ 5111 (Tests and Testing Procedures) and is contingent upon satisfactory completion of academic coursework and therapy Practicum experiences in a variety of disorder areas. Assignment to this Practicum is also determined by and at the discretion of the Clinic Program Coordinator.
- Clinic Lab. Students must enroll in BBSQ 5333 or BBSQ 5334, depending on previous academic background. This is a one-semester course in Laboratory M ethods and Instrumentation in Clinical Practice that is taken for 1 point. All students meet on Tuesday mornings for a lecture/presentation. Students are al so assigned to small group workshop sessions.
- H earing Practicum. Students are required to enroll in BBSQ 5343 (H earing M easurement). This is a one semester, one point Practicum that fulfills the ASH A requirement for clinical hours in A udiology.


## Doctor of Education

This degree program leads to a professional doctorate in Speech-Language Pathology and is designed to prepare candidates for professional leadership in clinical, supervisory, and teaching activities. A minimum of 90 points must be completed. There is no language requirement.

## Doctor of Philosophy

This program is designed for individuals primarily interested in careers in Speech-Language Pathology, in research, and college teaching. A minimum of 75 points must be completed. There is no language requirement.
All doctoral candidates must complete a di ssertation. For details concerning the various doctoral programs, consult the Office of Doctoral Studies' bulletins, "Requirements for the Degree of D octor of Education" and "R equirements for the D egree of D octor of Philosophy," and request from the program office statements on Ed.D. and Ph.D. programs.

C ontinuing Professional Education Each year, the Speech and Language Pathology program offers courses, workshops, and special events designed for postgraduates and other practicing professionals in the field and related fields. Also, under the Alumni Audit Program, alumni may audit courses offered through the program at substantially reduced fees. The program in Speech and Language Pathology and Audiology is approved by the Continuing Education Board of the American Speech-LanguageHearing A ssociation as a continuing education sponsor.

A cademic, Practical, and Research Training Opportunities Instruction in the areas of speech and language pathology and audiology includes formal course work (lectures, seminars, colloquia) and practica training. The formal course work within each area is supplemented by videotape and livecase presentations by the instructors and by direct experiences with clients within the Edward D. M ysak SpeechLanguage and H earing Center.

Practical training at the master's and doctoral levels includes lecture/demonstrations, small-group instruction, and direct experience with clients. Students engaged in practica are supervised individually and in groups by the faculty and staff of the program.

U nusual opportunities for learning and inquiry with reference to advanced clinical, supervisory, teaching, and research activities are provided within the large, wellequipped, and active Edward D. M ysak Speech-Language and H earing Center.

Opportunities for clinical and research experiences also exist in numerous affiliated field settings. For example, practical training experiences are available in approximately 60 selected field facilities including hospital, rehabilitation centers, and school settings.

The program's Clinic Laboratory is used to train students in the application of precision instrumentation for objective measurement of the phonatory, articulatory, and fluency dimensions of speech behavior. The laboratory is an integral element in the diagnostic and treatment services provided by the Speech-Language and H earing Center and enhances opportunities for clinical research.

Special learning and research experiences are available through the program's Speech Research Laboratory, and, for qualified students, laboratories maintai ned by the Department's programs in applied physiology and motor learning and control. Additional research facilities are avail able in several related Teachers College programs and Columbia U niversity departments in various affiliated institutions throughout the greater N ew York metropolitan area.

Traineships
Traineeships on the master's and doctoral levels from the Veterans A dministration, the Shield Institute, the Parkside School, the League Center, and others are avai lable through the department. For information and applications, contact the Office of Student Aid.

The program for preparing teachers of the speech and hearing handi capped is approved by the N ew York State Education Department. The Ph.D., Ed.D., Ed.M., and M.S. programs are al so registered by the N ew York and N ew J ersey State Education Departments.

## Courses:

## General

BBSQ 4040. Speech and language disorders (2-3)
Professor Saxman. Discussion of speech and language disorders and of remedial procedures. For speech pathology-audiology majors without academic background in speech and hearing and students in language arts, psychology, guidance, special education, childhood education, health education, nursing education, physical and occupational therapy, and dental hygiene.

BBSQ 4042. Audiology (2-3) Professor O'M alley. This course covers the anatomy and physiology of the auditory system, pure tone and speech audiometry, types and effects of hearing loss, amplification, and immitance audiometry.

## BBSQ 4045. Communication

 problems among the aging (2-3) Faculty. Survey of disordered communication processes in the aged, its assessment and its management in a variety of settings. Designed for non-majors, especially for those in gerontology, psychology, social work, nursing, health education, health administration, physical and occupational therapy, and dental hygiene.BBSQ 4046. Introduction to augmentative and alternative communication (2)
Dr. Budde and M s. Cohen. Introduction to basic sign language and al ternative and augmentative communication systems. Students informed on how to serve communicatively handi capped hearing impaired, emotionally disturbed, mentally retarded, and severely and profoundly involved individuals. Important to special educators, psychologists, occupational and physical therapists, and other heal th professionals.

BBSQ 4047. Early motor behaviors in children: normal and abnormal (3)
Dr. Sheppard. Study of normal and abnormal development of sensorymotor speech processes and related oral motor behaviors; etiology, diagnosis, and management of pre speech and eating pathologies in infants and severely handicapped individuals.

## BBSQ 5041. School speech-

language-hearing program (2) Faculty. Prerequisite: BBSQ 4040 or equival ent. A nalyzes impact of federal and statelaws on service delivery in schools. Develops skills to meet the needs of communica-tion-disordered student with the full range of disabilities, including working with other professionals to assist children in accessing the general curriculum.

BBSQ 5042. Geriatric communicology (2)
Faculty. Biomedical, psychosocial, and environmental factors as they relate to speech and hearing in the aged. Adaptations and innovations in procedures for assessment and management of geriatric communication problems. Programs for the delivery of services in institutions and the community.

## Basic Speech and Hearing Science

BBSQ 4030. Physiologic phonetics (3)
Professor Patel. K inesiologic approach to the study of phonetics and the phonetics of physiologic impairment. Practicein use of the International Phonetic Alphabet and other descriptive systems.

BBSQ 4031. A rticulatory, vocal, and auditory mechanisms (3)
Faculty. Basic structures and functions of the articulatory, vocal, and auditory mechanisms. A pplication of such study to the field of speech pathology and audiology.

## BBSQ 5044. Speech and language perception and process-

 ing (2-3)Professor O'M alley. Examination of the model s proposed to explain speech perception, and discussion of the research which assigns to speech and language a "special" role.

## Applied Speech Science <br> Courses (Speech-Language Pathology)

BBSQ 5105. A ssessment of child language (2-3)
Faculty. This course will cover procedures for analyzing and probing a child's language for the purposes of identifying language impairment and determining individualized intervention goals. A reas of language needed to be covered include morphology, syntax, semantics, pragmatics, and narrative for the agespan from toddlers to preadolescence.

## BBSQ 5110. Pathologies of

 speech systems (3)Faculty. Prerequisite: an introductory course in speech pathology. Discussion of major speech systems including the integrator, facilita tor, receptor, effector, transmitter, and sensor systems. Identification of anomal ies and diseases that affect the systems and accompanying speech, hearing, and language symptoms.

## BBSQ 5111. A ssessment and evaluation (3)

Ms. Crowley. Permission required. Required of speech pathology majors. Prerequisite: an introductory course in speech pathology. Studies use of published tests, technology, and alternative and curriculum-based strategies in assessment. Focuses on impact of bilingual ism and sociolinguistics on the assessment of culturally and linguistically diverse clients across the lifespan, covering the full range of disabilities.

BBSQ 5112. Articulation disorders (3)
Faculty. Prerequisites: phonetics course and an introductory course in speech pathology. Study of phonol ogical rule disorders and disorders associated with functional and various structural and neurol ogical problems. Critical anal ysis of research in etiology, testing, and therapy.

BBSQ 5113. Voice disorders (3) Professor Sweeting. Prerequisite: BBSQ 4031 or equival ent and an introductory course in speech pathology. Study of voice disorders associated with functional, structural, endocrinol ogical, and neurological problems. A nalysis of recent research and major approaches to voice therapy.

## BBSQ 5114. Stuttering: Theory

 and therapy (3)Dr. W exler. Prerequisite: an introductory course in speech pathology. Anal ysis of major theories and research on stuttering. Study of prophylactic principles for younger children and evaluative and therapeutic procedures for older children and adults.

BBSQ 5115. Language disorders in children (3)
Professor Gordon, M s. Crowly. Prerequisite: an introductory course in speech pathology. Language di sorders of native English speakers and children from culturally and linguistically diverse homes. Course covers birth through late adol escence and includes impact of language disorders on Ianguage acquisition, literacy, and uses of technology.

## BBSQ 5116. Language disorders

 in adults (3)Dr. Goldfein. Prerequisite: an introductory course in speech pathology. Study of aphasia: etiology, diagnosis, classification, and remedial procedures.

## BBSQ 5118. Cleft palate and

 speech habilitation (2-3) Professor Saxman. Prerequisite: an introductory course in speech pathology. Etiol ogy and symptomatol ogy of the communication impairment associated with cleft lip and pal ate and other craniofa cial disorders. The role of the speech pathologist in the multidis-ciplinary approach to total habilitation of children and adults.

## BBSQ 5119. A laryngeal speech

 (1)M s. K latsky. Prerequisite: an introductory course in speech pathology. Survey of medicosurgical treatments for laryngeal carcinoma. A nalysis of physiologic, acoustic, and psychosocial aspects of al aryngeal speech. Study of therapeutic methods.

## BBSQ 5120. Communication

 disorders in bilingual/bicultural children (3)M s. Crowley. Study of effect of bilingual education, sociolinguistics, psycholinguistics, and multicultural perspectives in education of communication disordered children. Considers appropriate assessment and treatment to ensure optimal academic success for English language learners with communication disorders.

## BBSQ 5130. A ssessment and

 intervention in dysphagia (2) Dr. Sheppard. Study of eating and swallowing disorders in children and adults. Assessment and management strategies for eating and swallowing disorders.
## Applied Hearing Science Courses (Audiology)

BBSQ 5125. Clinical approaches to aural habilitation of children (3)

Ms. Boemio. Prerequisite: BBSQ 4042 or equival ent. Clinical procedures avai lable to audiol ogists, speech pathol ogists and deaf educators for implementing speechreading, auditory training, speechlanguage therapy for the hard-ofhearing child. Use of amplification and counseling approaches.

BBSQ 5126. Clinical approaches to aural rehabilitation of adults (3)

Faculty. Prerequisite: BBSQ 4042 or equival ent. Recent developments in speech-reading, auditory training, and speech conservation. The audiologic problems of the geriatric population. Principles of therapy and clinical techniques emphasized.

BBSQ 5129. Audiological concepts and principles (1)
Professor O'M alley. Prerequisite: BBSQ 4042 Audiology or equiva Ient. This course covers pathologies of the auditory system; electrophysiological measures, otoacoustic emissions, tests of central auditory function.

## Practica

BBSQ 5210-BBSQ 5212.
Practicum in school speechlanguage pathology (3)
Professor Sweeting. Permission required. Participation and student teaching in a school remedial speech and hearing program: survey, organization, remedial proce dures. Special fee: $\$ 150$.

BBSQ 5312. Diagnostic methods and practice in speech-language pathology (3 per section)
Professor Sweeting. Sections:
(1) TBA. (2 ) TBA. (3) TBA.
(4) Required of speech pathology
majors. Prerequisites: BBSQ 5110 and BBSQ 5111. M ethods of assessing native English speakers and culturally and linguistically diverse clients across the full range of disabilities and across the lifespan. A nal ysis of language skills related to academic achi evement. U ses of technology in assessment. Special fee: $\$ 150$.

BBSQ 5331-BBSQ 5339. Therapy Practicum
Faculty. A ssessment and intervention planning and implementation for clients across the full range of disabilities and across the lifespan. Covers the needs of native English speakers and English Ianguage
learners in hospitals and school set-
tings. College-supervised practica. BBSQ 5331-BBSQ 5332. Regular clinic (3)
Professor Sweeting (Coordinator). Observation and practice in speech and language therapy at the Speech and H earing Center and at related field facilities. Weekly lecture on principles of speech and language therapy. M ajors enroll until practicum requirements for the M.S. degree are completed. Special fee: \$150.

BBSQ 5333-BBSQ 5334. Laboratory methods and instrumentation in clinical practice (0)

Faculty. Instruction and practice in acoustic and physiologic mea sures related to voice, articula tion, and fluency disorders. M ajors must enroll for one Autumn and one Spring term. Special fee: \$150.
BBSQ 5335. Infant evaluation clinic (0)
Dr. Sheppard. Observation and participation in the evaluation of pre-speech and feeding behaviors in at-risk infants and in the development of individualized management programs. Special fee: $\$ 150$.
BBSQ 5336. Stuttering clinic (0)

Dr. W exler. Observation and participation in group therapy for adult stutterers. Special fee: \$150.
BBSQ 5337. A phasia clinic (0) Faculty. Observation and participation in group therapy for adult aphasics. Special fee: $\$ 150$. BBSQ 5338. Voice clinic (0) Faculty. Observation and participation in group therapy for adults with voice problems. Special fee: \$150.
BBSQ 5339. Computer applications in clinical practice (0) Faculty. Understanding, evaluating, and implementing microcomputer facilities in speech and hearing practice. Special fee: $\$ 150$.

## BBSQ 5340-BBSQ 5343. Meth-

 ods and practice in audiology Faculty. Permission required. Preor co-requisite: BBSQ 5120. May be repeated for credit.
## BBSQ 5342. Auditory rehabilitation clinic (0)

Faculty. Observation and participation in individual and group therapy for hearing impaired individuals. Special fee: $\$ 150$.

## BBSQ 5343. Hearing measure-

 ment (1)Ms. Boemio. Practice in hearing screening, audiological eval uation, hearing aid fittings and troubleshooting malfunctioning hearing aids. For speech and language pathology majors. Prerequisite: BBSQ 4042. Special fee: $\$ 150$.

BBSQ 6351-BBSQ 6355.
Advanced practice (2)
Faculty. Advanced practice in speech-language pathology and audiology required. Doctoral students are required to register in four sections during their period of candidacy. O bservation of faculty during therapy, diagnosis, supervisory, teaching, or research activities and participation in such activities.

> BBSQ 6351. Clinical (2)
> BBSQ 6352. Supervision (2)
> BBSQ 6353. Teaching (2)
> BBSQ 6354. Laboratory (2)
> BBSQ 6355. Administration (2)

## Research Courses and Seminars

BBSQ 5940. Evaluating research in speech-language pathology and audiology (3)
Professor O'M alley. Required of all M aster's and first-year doctoral students. Evaluation of research methods.

BBSQ 5941. Research needs and methods in speech-language pathology and audiology (3) Professor Saxman. Permission required. Prerequisite: BBSQ 5940. Required of first-year doctoral students. Development of rationales for doctoral dissertations and projects.

BBSQ 6511. Seminar in supervision in speech-language pathology and audiology (2)
Faculty. Permission required. Study of supervisory models in speech-Ianguage pathology and audiology and related areas.

BBSQ 6512. Seminar in the practice of supervision in speech-language pathology and audiology (3)
Faculty. Permission required. Prerequisite: BBSQ 6511. Continued study of supervisory processes and opportunity for supervisory experiences.

BBSQ 6513-BBSQ 6517. Seminars in basic and applied speech science (3)
Faculty. Permission required. For doctoral candidates and advanced master's degree students in speechlanguage pathology. Doctoral candidates are required to enroll in at least three sections. Seminars involve intensive study and analy-
sis of current research and issues in
the particular topics.
BBSQ 6513. Phonological impairment (children and adults) (3)
BBSQ 6514. Language: brain, biology, and language acquisition (3)
BBSQ 6515. Voice and its disorders (3)
BBSQ 6516. Fluency and its disorders (3)
BBSQ 6517. Neuropathology of speech (3)

BBSQ 6520. Seminars in basic and applied hearing science (3) Professor O'M al ley. Permission required. For doctoral candidates and advanced master's degree students in audiology. Doctoral candidates are required to enroll in at least three seminars. Intensive study and analysis of current issues on particular topics.

BBSQ 6940-BBSQ 6941. Supervised research in speechlanguage pathology and audiology (3 per section)
Sections: (1) Professor Saxman.
(2) Professor O'M alley. (3) Faculty
(4) Faculty. Permission required.

Prerequisite: BBSQ 5941. Doctoral candidates are required to enroll in their advisor's section for both semesters. Opportunity to design and conduct pilot studies and projects.

BBSQ 7500. Dissertation seminar in speech-language pathology and audiology (2)
Professor Saxman and Faculty. Prerequisite: BBSQ 6941. Development of doctoral dissertations and projects and presentation of plans for approval. Doctoral candidates are required to enroll for one year and must begin the sequence in the Autumn term immediately following completion of BBSQ 6941.

BBSQ 8900. Dissertationadvisement in speech-language pathology and audiology (0)
Faculty. Prerequisite: BBSQ 7500. Individual advisement on doctoral dissertations. Fee to equal 3 points at current tuition rate for each term. For requirements, see section in catal og on Continuous Registration for Ed.D./Ph.D. degrees.

## Continuing Education

BBSQ 6111. Current issues and practices in speech-language
pathology (1-3)
Faculty. Topics will vary with respect to current issues and practices in speech-language pathology.

BBSQ 6112. Neurospeech therapy for the cerebral palsied (1-3)
Faculty. Required. Application of devel opmental neurophysiology to cerebral palsy speech habilitation.
Discussion, demonstration, and practice in neurophysiological evaluation of and neurospeech therapy for cerebral palsied children.

BBSQ 6120. Current issues and practices in audiology (1-3) Faculty. Topics will vary with respect to current issues and practices in audiology.

## BBSQ 6811. Neuromuscular facilitation approaches to assessment and treatment of oral motor dysfunction

(N oncredit or 1-3)
Dr. Sheppard. A pplication of neuromuscular facilitation approaches to the various eating, pre-speech, and motor speech disorders caused by oral motor dysfunction in infants and the severely, devel opmentally disabled.

BBSQ 6812. Symposium on care of the professional voice (1)
Faculty. Course taken in association with the annual symposium on the care of the professional voice sponsored by TheVoice Foundation. The purpose of the symposium is to present the latest information on research findings and on teaching and clinical activities pertinent to the care of the professional singing and speaking voice.

Chair: M adonna G. Constantine Location: 428 H orace M ann
Tel ephone N umber:
212-678-3257
Fax: 212-678-3275

## Programs:

Psychological Counseling
Counseling Psychology
Clinical Psychology
Psychology in Education

## Faculty:

## Professors:

Judith Berman Brandenburg (Counseling)
R obert T. Carter (Counseling)
Barry A. Farber (Clinical)
Leah Blumburg Lapidus
(Clinical)
Elizabeth Midlarsky (Clinical)
R osal ea A. Schonbar
(Clinical)-Emeritus
Derald Wing Sue (Counseling)

## Associate Professors:

Madonna Constantine
(Counseling)

## Assistant Professors:

George Bonanno (Clinical)
George V. Gushue (Counseling)
Lisa Miller (Clinical)
Christine Yeh (Counseling)

## Adjunct Professors:

James Fosshage (Clinical)
J erome W. K osseff (Clinical)
Arnold W. W olf (Counseling)
Stephen Reisner (Clinical)

## Visiting Adjunct Associate Professors:

Jesse D. Geller (Clinical)

## Adjunct Associate Professors:

X avier Amador (Clinical)
Ghisl aine B oulanger (Clinical)
N urit N. Israeli (Counseling)
N anette A. K ramer
(Counseling)
Laurence Lewis (Clinical)
A racelia Pearson-Brok
(Clinical)

Adjunct Assistant Professors:
Clarissa Bullitt (Clinical)
Jill Backfield (Clinical)
Tamara Buckley (Counseling)
D onna Bender (Clinical)
J effrey Foote (Clinical)
Lisa K entgen (Clinical)
Michael J. K oski (Counseling)
Ruth Livingston (Clinical)
Deborah M elincoff (Counseling)
Samuel E. M enahem (Clinical)
Laura N isco (Clinical)
Billie Pivnick (Clinical)
Dinelia Rosa (Clinical/
Counseling)
John Rosegrant (Clinical)
A ndrea Safirstein (Counseling)
Christiane H umpke (Clinical)
David Yourman (Clinical)
For information about faculty and their scholarly and research interests, please refer to the "Faculty" section of the Catalog.

## Departmental Mission:

This department prepares students to investigate and address the psychological needs of individuals, families, groups, organizations/institutions, and communities. Counseling psychol ogy focuses on normal and optimal development across the lifespan, with particular attention to expanding knowledge and skills in occupational choice and transitions, and multicultural and group counseling.

Clinical Psychology primarily uses a broad-based psychodynamic perspective to study and treat a variety of psychological and psychoeducational problems. In addition to sharing an interest and appreciation for the critical role of culture in development and adaptation, both programs highly value the teaching of clinical and research skills.

Thus, students in this department are trained to become knowledgeable and proficient researchers, to provide psychological and educational leadership, and to be effective practi-
tioners. Specifically, graduates
from these programs seek positions in teaching, research, policy, administration, psychotherapy, and counseling.

Counseling Psychology
Program Coordinator: Professor R obert T. Carter
Director of Training: Professor R obert T. Carter

## D egrees Offered:

M aster of Education (Ed.M.) (Code: TJE) M.A. en passant
D octor of Education (Ed.D.)currently not accepting applications
Doctor of Philosophy (Ph.D.) (Code: TJV)

## Special Application Requirements/Information:

An undergraduate major in psychology or one of the other social or behavioral sciences is desirable, but not essential. It is expected that the personal statement which accompanies the student's application will show a realistic assessment of the student's professional interests and goals, as well as how she/he fits with the program's training objectives.

Applications are considered once a year for the doctoral program and throughout the year for the master's program. M aster's applications received after the priority deadline for the fall semester will be considered until A pril 15 on a spaceavailable basis.

## M aster of Education

At least one of the two required letters should be an academic reference. The GREs are not required for the Ed.M.

D octoral Program
Doctoral applicants must submit all credentials along with their scores on the Graduate Record Examination General (A ptitude) Test by December 15. D octoral applicants are al so
required to submit a copy of a recently completed paper on a topic of interest to them. This may be, but does not have to be, a paper submitted to satisfy course requirements. Admissions decisions are made once a year, usually by A pril. All admissions materials must be received by the December 15 deadline.

W hile admission to the Ph.D. program requires final acceptance by the Columbia U niversity G raduate School of Arts and Sciences as well as Teachers College, the administrative details for this process are managed via the Teachers College Admissions Office. Applicants should not submit an application to the Graduate School of Arts and Sciences. The Graduate School of Arts and Sciences requires that applicants have a Bachelor of A rts degree with 60 points of liberal arts credit.

Preference is given to candidates with excellent verbal and quantitative skills whose transcripts, references, performance in an admissions interview, and previous work experience suggest that they have the potential to make a significant contribution to theory, research, practice or policy-making.

## Program D escriptions:

The Program in Counseling Psychology is dedicated to the preparation of psychological counsel ors (master's students) and counseling psychologists (doctoral students) who facilitate the normal and optimal development of individuals, groups, and organizations that is culturally relevant and psychologically appropriate across the life span. Our students are taught to use strategies of prevention, intervention, and remediation to assist others in devel oping effective coping skills and responses to their environments.

The objectives of the program are to prepare students to:

1) focus on the development of individuals and groups, their educations and careers, assets and strengths, the importance of person-environment interactions, psychoeducation and preventive needs, as well as their pathologies
2) intervene in appropriate arenas through their commitment to education, evaluation, research, and program development
3) be self-aware and sensitive to social constructions, to issues related to identity group membership, and to participate in a variety of settings with diverse populations
4) integrate theory, practice, and research
5) devel op identities as ethical counsel ors who are socialized into the profession and contribute to the discipline and to society.

These competencies prepare students to work in a variety of settings with emphasis on educational (e.g. schools, colleges, and universities, etc.), health (e.g. outpatient clinics, hospitals, nursing homes, etc.) and related agencies. In roles as psychological counselors, masters graduates will be able to apply their skills in school counseling, clinical practice, administration, assessment, and research. As a result of more in-depth training at the doctoral level, the roles of counsel ing psychologists include a capacity to produce knowledge, to be leaders in relation to policy devel opment and implementation, and to work in independent practice.

W ith the help of a faculty advisor, students register for required and elective courses, revel ant to their special needs and career objectives. Depending on their areas of interest and levels of training, graduates have found employment in
colleges, adult education centers, industry, various health centers, and community and government agencies.

Regardless of their eventual work settings, students in the program are expected, by the end of their training, to have the following in common:

- They are concerned with assessing, facilitating and guiding individual development. Their focus is on enhancing those conditions which further human development, and on ameliorating those that hamper it. They help individuals discover and take advantage of possibilities in the environment and in themselves. They are skilled in working with individuals from diverse ethnic, racial, cultural, and socioeconomic backgrounds.
- They are concerned with the social, situational, and psychological determinants of behavior. They use their theoretical knowledge to bring about growth in individuals and their environments. They are concerned with providing individuals and groups with experiences that will help them achieve their full potential.
- They are skilled in several modes of facilitating human devel opment, such as individual and group counseling, environmental intervention, and planned exploratory and developmental experiences. They are concerned with translating concepts and theories into strategies and programs of intervention. They not only engage in designing innovative programs and planned interventions, they eval uate the outcomes of such undertakings.

Experience has shown that the program is not appropriate for students who seek to become psychotherapists. Applicants
who are so motivated are advised to seek admission to a program in clinical psychology.

## M aster of Education

The Ed.M. is granted after successful completion of a special project and 60 points of planned, sequential study beyond the bachelor's degree, of which at least 30 points must be taken at Teachers Col lege. The Ed.M. can lead to the doctorate at Teachers College and elsewhere, but usually with some loss of time and credits because of differences in emphasis between master's and doctoral programs.

School counseling is one of several areas of specialization within the Ed.M. in Psychological Counseling whose graduates are eligible for Certification. It is a specialty that allows students to develop appropriate skills to deliver services unique to school settings, in addition to learning the essential functions generally found in the counseling profession.

A graduate of this specializa tion is eligible for provisional Certification as a School Counselor in N ew York State after completing the Program, including a series of specified courses. See specific course requirements in the Degree Requirements section below, as well as in the School Counseling Special ization statement available from the Counseling Psychology Program.

For permanent certification, N ew York State requires two years of employment as a school counselor and 30 additional credits of graduate work. The credits from the Ed.M. beyond the M.A. will be applied toward the 30. Students planning to obtain N ew York State Certification in School Counseling use the
en passant M.A. to apply for provisional certification. The application for certification is made upon graduation.

Similarly, students can become certified as rehabilitation counselors by completing a series of specified courses, 3 to 4 years of post-master's work experience in an appropriate setting, and successful performance on an examination sponsored by the Commission on Rehabilitation Counselor Certification (CRCC). Seedetails in the "Degree Requirements" section below.

In addition, students who complete the Ed.M. are eligible to apply in states that offer M aster's level licensure.

A terminal M.A. degree is not offered. H owever, students who have completed 32 credits of appropriate work and passed the master's level comprehensive examination at Teachers College may apply for the award of the en passant M.A. during their third full-time (or part-time equival ent) semester of study. To satisfy residence requirements, 45 points out of the 60 must be completed at Teachers College if both the M.A. and Ed.M. are sought. Those 45 credits must include all courses required for the M.A. Students should be aware that transfer credits cannot be used toward the MA en passant.

Required courses are scheduled in the afternoon and evening, so it is possible for students with flexible schedules to attend on a part-time basis and complete the program. Fulltime students generally complete the program in about two years. The length of completion for part-time students varies with the number of points for which they enroll each semester.

## Doctor of Philosophy

The program of study that follows is described in terms of full-time study. Some of the courses may be taken on a parttime basis. At least one full year of full-time study after the first 30 applicable credits is required unless the student can present persuasive evidence that his/her living and working circumstances have not pre vented and will not prevent him/her from taking full advantage of the College's resources. Certain essential subjects and practica are offered only in the morning and early afternoon hours.

The doctorate is granted after successful completion of a minimum of 90 points of planned, sequential study beyond the bachelor's degree, of which at least 60 points must be taken at Teachers College. The doctoral program is approved by the American Psychological Association and requires at least four years, including the equival ent of three years of aca demic study beyond the Bache lor's degree and one cal endar year of internship.

- Students are required to take 6 semesters of Advanced Professional Issues. Registration for these 6 semesters should occur in the first three years of study.
- Students must take 5 semesters of practicum, beginning in the spring semester of the first year. Students are required to attend a weekly 2 hour seminar, as well as meet with the individual supervisor and with each client.
- Students must take 5 semesters of research-focused courses, beginning with Review of Research in Counseling in the spring of the first year, followed by one year (two semesters) of Research Practicum with a faculty member, followed by
a two semester Dissertation Seminar. These courses are in addition to the two semesters of statistics required of each student, and a semester of Research M ethods in Social Psychology.
- Students must complete at least 6 general psychology core requirements in the areas of cognitive and affective aspects of behavior, human development, social aspects of behavior, biological aspects of behavior, history and systems of psychology, and measurement.
- Students must al so complete a course in ethics, to be taken in the first year.
- Students must al so take Group Counseling or its equival ent, R acism and Racial Identity in Psychology and Education, or Perspectives on Cross-cultural Counseling in Psychology, Racial Cultural Counseling Laboratory, and 1 year of Psychological Testing.

Please note that upon admission to the Ph.D. students will receive H andbook for the $\mathrm{Ph} . \mathrm{D}$. in Counseling P sychology.

The program of study leading to the doctorate in Counseling Psychology is guided by criteria adopted by the A merican Psychological Association for accredited programs in professional psychology. In consultation with their advisors, students will select the courses and other learning experiences which best utilize what they have already mastered and which will add to their mastery of areas of competence considered necessary and desirable.

The course of studies includes: Scientific and professional ethics and standards; Psychological measurement, statistics and research design and methodology; K nowledge and understanding of a) history and systems of psychology b) the
biological basis of behavior (e.g. physiological psychology, comparative psychology, neuropsychology, sensation, psychopharmacology) c) the cogni-tive-affective bases of behavior (e.g., learning, memory perception, cognition, thinking, motivation, emotion d) the social bases of behavior (e.g., social psychology, cultural, ethnic and group process, sex roles, organizational and systems theory), and e) individual behavior (e.g. personality theory, human development, individual differences, abnormal psychology); Intervention strategies and service delivery systems; M ethods of inquiry; Preparation to undertake a doctoral dissertation.

In developing the necessary mastery of these areas, the student is expected to be attentive to the historical roots of counseling psychology, i.e., the study of individual differences, the vocational guidance movement and the mental health movement. Similarly, he/she is expected to be prepared for the probable future of counseling psychology in the areas of expertness represented by this faculty, especially the influence of social and cultural systems (home, family, workplace and environment) on human development and change.

In addition to core requirements, courses in specific and specialized areas of counseling psychology are available. Courses in the department are supplemented by appropriate offerings in other programs and departments at Teachers Col lege and Columbia U niversity.

## D egre Requirements:

## Master of Education

In addition to required core courses, students will be expected to select electives from the various areas of psychology and other appropriate
disciplines that will provide breadth and depth to their preparation as counselors.

The core courses are:

- CCPJ 4064, Principles and methods of psychological counseling
- CCPJ 5062, Career counseling and development
- CCPJ 4560, Professional issues
- CCPJ 5361, Counseling skillsI \& II
- CCPJ 5025, Group counseling
- CCPJ 5020, R acism and racial identity in psychology and education
- CCPJ 5164, Cross-cultural counseling and psychology
- CCPJ 5165, R acial/cultural counseling laboratory

The courses for the broad and basic areas are:

- HUDM 5059, Psychological measurement
- HUDK 4022, Developmental psychology: childhood
- HUDK 4023, Developmental psychology: adolescence
- HUDK 4024, Developmental psychology: Adulthood and the Life Span.
- HUDK 5029, Personality and Socialization across the life span.

TheClinical Psychology require ment may be met by one of the following four courses:

- CCPX 4030, Psychology of adjustment
- CCPX 4035, Personality and behavior change
- CCPX 5032, Personal ity and psychopathology
- CCPX 5034, D evel opmental psychopathology

The Research requi rements may be met by taking one of the following three courses:

- HUDM 4122, Probability and statistical inference and
- HUDM 5122, Applied regression analysis, or
- ORLJ 4009, Understanding behavioral research and

Students should register for the foll owing courses to meet Fildw ork and Practicum requirements:

- CCPJ 5260, Fieldwork in counseling and rehabilitation
- CCPJ 5263, Supervised fieldwork in elementary school counseling
- CCPJ 5265, Supervised fieldwork in secondary school counseling
- CCPJ 5360, Practicum in career and personal counseling

Students must have completed all prerequisites for the Fieldwork and Practicum before they will be allowed to register for these courses. Please see prerequisites which are listed with the course descriptions. Students must apply for CCPJ 5360 between A pril 15 and June 1 of the A cademic Year prior to their planned enrollment in the practicum. Applications are avai lable from the program secretary. In addition, CCPX 5630 (Case Conference), offered for zero credit, must be taken concurrently with CCPJ 5360.

Students planning to complete the requirements for N.Y.S. certification in School Counseling must take either CCPJ 4160, School counseling for children and youth or ITSL 5023, Counseling techniques for the bilingual-bicultural children and their families, and do their fieldwork (CCPJ 5263 or CCPJ 5265) in a school setting. Colleges are not a recognized school setting for certification purposes.

Students interested in becoming Certified Rehabilitation Counselors must take CCPJ 4065, Career devel opment of women; CCPJ 4062, M edical aspects of disabilities and rehabilitation or CCPJ 5063, Psychological aspects of disabilities and rehabilitation; and CCPJ 4061, Rehabilitation counseling: principles and practices. Students' fieldwork (CCPJ 5260) must be done in a rehabilitation setting
under the supervision of the Certified Rehabilitation Counsel or (CRC).

A Special Project is required in addition to the 60 points of course work. Students should plan to complete their project in the same semester that they apply for the Ed.M. degree.

The Comprehensive Exam, which is a mandatory require ment for obtaining the en passant M.A., is generally taken in the semester in which 45 credits are completed.

## Doctoral Program

Please note that satisfactory performance in required courses is defined as an overall grade point average of $B+$. No course in which the grade earned is lower than B can be considered.

G eneral P sychol ogy requirements:

- HUDK 4029, Theories of human cognition and learning
- HUDK 5029, Personality devel opment and socialization across the life span
- ORLJ 5540, Pro-seminar in social psychology
- CCPJ 4075, Brain and behavior
- CCPX 6020, History and systems of psychology
- HUDM 5059, Psychological measurement

Professional D evel opment
requirements:

- CCPJ 6569, Scientific and professional ethics
- CCPJ 6560, Advanced professional issues (first three years)

Research: There are two areas of requirements: Research M ethodology and Techniques of D ata A nalysis.

Research M ethodology
requirements:

- CCPJ 5560, Review of research in counseling psychology
- CCPJ 6572-79 (Year Course), Research practicum in counseling psychology
- CCPJ 5040, Research methods in social psychology
- CCPJ 7502, (Year Course), Dissertation seminar
- CCPJ 8900, Dissertation advisement

Techniques of $D$ ata $A$ nalysis
requirements:

- HUDM 4122, Probability and statistical inference
- HUDM 5122, Applied regression anal ysis

Practice:
Our practice sequence includes courses associated with individual differences, human functioning, dysfunctional behavior or psychopathology, theories and methods of assessment, diagnosis and effective interventions. The following courses are required if not taken in a
master's degree:

- CCPJ 4064, Principles and methods of psychological counseling
- CCPJ 5361 Counseling skills I \& II
- CCPJ 5062, Career counseling and development
- CCPJ 5360, Practicum in career and personal counseling
- CCPJ 5025, Group counseling

Thefollowing courses are required of all doctoral students:

- CCPX 5032, Personality and psychopathology or
- CCPX 5037, Dynamic psychotherapies or
- CCPX 5038, Cognitive behavioral, and interpersonal therapies
- CCPJ 5060-61 (Year Course), Assessment in counseling psychology (individual psychological testing)
- CCPJ 5165, R acial-cultural counseling laboratory
- CCPJ 6330, B asic practicum in individual counseling and psychotherapy
- CCPJ 6350, Externship in counsel ing psychology
- CCPJ 6360Z, (Year Course), Practice in psychological counseling
- CCPJ 5364Z, Advanced practicum in cross-cultural counseling and psychotherapy (year course)
- CCPJ 6460 (Year Course), Internship (completed after the student has achieved an approved dissertation)
- CCPJ 6560, A dvanced professional issues

Practice Electives:
El ective possibilities are

- CCPJ 6363, A dvanced group practicum
- CCPJ 6368, A dvanced supervision and training
- CCPJ 5368, Supervision and teaching of counseling
- CCPJ 6362, Group practicum

D octoral Certification Counseling psychology students do not become official candidates for the degree of Doctor of Philosophy until they have an interdepartmental and college wide examination on research methods and design, submitted a scholarly review of research on a psychological topic of particular interest to them, and passed a program certification comprehensi ve exam. In addition, they must satisfy all other require ments for certification prescribed by the Office of Doctoral Studies (see the bulletins issued by that office). Students who fail to take the certification examination at the appropriate point in their studies are subject to certain penalties. To avoid these penalties, the certification examination must be taken no later than the third year in the program.

Candidacy as a doctoral student expires after a certain number of years. Ph.D. candidates must complete all degree require ments within seven years of first entering the program (six years if they have an applicable master's degree or 30 points of advanced standing prior to doctoral admission)

The P rogram Certification and C omprehensive Exam The Certification and Comprehensive Exam will have two components: (A) a scholarly paper involving a comprehensive and integrative review of the literature in a topic chosen by the student in consultation with his or her advisor; and (B) a written exam covering several areas in counsel ing psychology. Exam questions will assess the student's command of: (1) theoretical concepts; (2) core psychology course work; (3) clinical interventions; (4) assessment in career work and personal/social counseling; and (5) professional issues such as ethics, professional trends, and devel opments in counseling psychology. Cultural issues will be infused in the content questions on the exam.

TheD issertation
For most doctoral students, the completion of course requirements presents few problems. Successful completion of a dissertation is usually less easily managed. U nless carefully planned in advance, it can prove a difficult hurdle. Accordingly, the program has several built-in features designed to facilitate the formulation and successful execution of an acceptable dissertation proposal.

Students must have an approved dissertation proposal before they can apply for an internship. Students must petition the faculty if they wish to apply for internship. There are progress eval uations done
annually to facilitate students timely completion of the Ph.D. degree. Please see the D octoral Student H andbook for further details.

## Courses:

Courses at the 4000-level do not usually require permission of the instructor and are open to nonmajors as well as majors. M any 5000-level courses are also open to non-majors with appropriate back ground; 6000-level courses are usually limited to majors with advanced standing in the program. See listings below for prerequisites and limitations on enrol Iment. In addition to the courses listed below, students should consult the offerings of other psychol ogy programs in this catal og.

## CCPJ 4061. Rehabilitation coun-

 seling: Principles and practices (2-3)Dr. W olf. History and legislation, principles, settings, major issues.
The counsel or's role in the rehabilitation program

## CCPJ 4062. Medical aspects of

 disabilities and rehabilitation (2-3)Faculty. Limiting aspects of the major physical and emotional disabilities. U nderstanding and using medical knowledge in rehabilitation counseling.

## CCPJ 4064. Principles and

 methods of psychological counseling (3)Professor Sue. Approaches to counseling; theories and research findings; educational, vocational, and personal counseling; typical problems; illustrative cases.

CCPJ 4065. Career development of women (2-3)
Professor Raskin. A pplicability of existing theories of vocational choice and adjustment to the career development of women.
New and emerging concepts, theories, and research findings. Psychological, sociological, and economic factors which facilitate or impede the career development of women.

CCPJ 4068. Counseling women (2-3)
Emphasis on the factors that influence the familial and intrapsychic issues of women. The integration of theories provides a framework for understanding the implications of women's development for counseling and psychotherapy.

## CCPJ 4160. School counseling

 for children and adolescents (3) Faculty. Principles and practices in the guidance of children and adolescents examined from a multidisciplinary and multicultural perspective with special emphasis on facilitating developmental processes of school, family, and community contexts. The role of the Guidance Counsel or in developing preventive and rehabilitative interventions in urban and suburban school s/communities will be considered. Special fee: $\$ 15$.CCPJ 4165. Community agencies and resources (2-3)
Faculty. Community services and programs in family and personal counseling, health and child care, mental health, career counseling, job placement, and service to the aged.

## CCPJ 4166. Current issues in gerontology (1)

Dr. K ramer. Current and emerging emphases in theory, research, and practice. Registration not limited to one term. Topics are announced in the preliminary and final course schedules distributed each semester.

## CCPJ 4560. Professional and ethical issues in psychological counseling (2)

Professor Brandenburg. Professional orientation for Ed.M. students in psychological counseling. Ethics and professional issues; employment opportunities and work settings. Registration in the first year is recommended.

## CCPJ 5020. Racism and racial

 identity in psychology and education (3)Professor Carter. A review of the debate on the influence of race and racism on education, mental health, and other social sciences. Introduction of current theoretical and research developments which explore the influence and role of
racial identity (black and white) in individual development and professional practice.

## CCPJ 5060-CCP 5061. Assessment in counseling psychology

 (2-master's, 3-doctoral) CCPJ 5060. Dr. K ramer. The course is designed to provide an overview of the basic principles, theories, issues and practices in the field of psychological testing. Tests of both cognitive and personality functioning will be included, with emphasis on identification of both problems and strengths. This course is divided into 2 sections, as follows:Section 1: Open to all students. It is a one semester course which covers theories and concepts of testing, an introduction to DSM IV, understanding and interpreting of test results and test reports, and use of assessment results to develop treatment plans and interventions.
Section 2: Open only to doctoral students in Counseling Psychology. In addition to the material covered in section 1 , it includes training in the administration, scoring, interpretation and reporting of results of a standard battery of test instruments. Students will meet for weekly small-group supervision as well as for class instruction. This course is offered in the Fall. Special fee: $\$ 150$.
CCPJ 5061. Dr. K ramer. Students will explore a range of contemporary issues in testing and will al so receive supervised testing experience in a hospital or clinic. This course is offered in the Spring only for the students who have completed CCPJ 5060, Section 2.

## CCPJ 5062. Career counseling

 and development (2-3)Dr. Constantine. General concepts of career development and methods of assessment in career counseling. This course also highlights various issues related to the career development of diverse client populations in light of contemporary socio-political phenomena. Materials fee: \$40.

CCPJ 5063. Psychological and cultural aspects of disability and rehabilitation (2-3)
Dr. W olf. Personal ity theory and physical disabilities. Personality and environmental variables in the adjustment and rehabilitation process.

## CCPJ 5064. Couples and family

 therapy: theory and practice (3) Dr. Israeli. Open to majors in counseling and clinical psychology and to others with appropriate backgrounds. The course focuses on the relationship between self and system. Integrative theory models based on systemic thinking are explored. Family systems approaches relevant to working with individual adults, children, couples and families are studied. Illustrative cases are presented and discussed.
## CCPJ 5065. Psychology of the

 undergraduate: issues for counseling and psychology (3)Professor Brandenburg. Theory and research on the psychological development of women and men in college. Focus on intellectual, psychosocial, moral, and vocational devel opment with attention to the needs of special student groups, and to the campus context and climate. Institutional structures and responses. Issues for counseling and education.

CCPJ 5161. Counseling and normal aging (2-3)
Dr. K ramer. Exploration of factors impacting on psychological treatment for normative problems of later adulthood such as physical illness and retirement, and survey of interventions designed to address these problems.

CCPJ 5162. Counseling and psychopathology in older persons (2-3)
Dr. K ramer. Exploration of factors impacting on psychol ogical treatment of serious psychological dysfunctioning in later life, such as senile dementia and clinical depression, and survey of interventions designed to address these problems.

CCPJ 5164. Cross-cultural counseling and psychology (2-3)
Professor Yeh. Introduces students to a range of approaches used in psychology and other disciplines
for developing therapeutic intervention across racial and cultural groups. Examination of culturally indigenous perspectives of and approaches to mental health and healing. Introduction to culturally based counseling methods.

## CCPJ 5165. Racial-cultural

 counseling laboratory (4)Professor Carter. Permission
required. Prerequisites: CCPJ 4064, CCPJ 5361, CCPJ 5362 and CCPJ 5020 or CCPJ 5164. An advanced experiential skill oriented, and didactic course intended to provide insights into the racial, social and cultural factors in the development of relationships in counseling. The course uses a minimum competence model focused on self-exploration and the use of counseling skills.

## CCPJ 5167. Consultation and

 supervision in counseling (2-3) Faculty. Prerequisites: CCPJ 4064, CCPJ 5361, and CCPJ 5362, or equival ent training and experience. For advanced master's and doctoral students. Introduction to the knowledge and skills of consultation and supervision in the helping professions, emphasizing the work of the counselor in schools and agencies.
## Relevant Courses in Other Departments Taught by Counseling Faculty:

HUDK 5122. Psychological factors in later life (3)
Faculty.
ITSL 5023. School counseling for the bilingual/bicultural child and family (3)
Faculty.

## Fieldw ork and Internships

CCPJ 5260. Fieldwork in psychological counseling and rehabilitation (2-4)
Faculty (Coordinator). Limited to second-year students. Required: Written application by the Last W ednesday in September for Spring and Summer and by the First Wednesday in February for Autumn and permission of the instructor. Prerequisites: CCPJ 4064, CCPJ 5062, CCPJ 5361 I\&II, CCPJ 5025; and either HUDK 4022, HUDK 4023, or

HUDK 4024; or approved substitutes. Supervised experience in various types of social agencies, rehabilitation agencies, career counseling centers, busi ness establishments, educational institutions, and facilities serving the elderly. N ormally a minimum of two semesters is required at 2 points per term. Additional points of credit may be added only with the approval of the instructor.

## CCPJ 5263. Supervised fieldwork in elementary school

 counseling (2-4)Faculty. Required: W ritten application by the last W ednesday in September for Spring and Summer and by the First W ednesday in February for Autumn and permission of the instructor. Limited to second-year students special izing in elementary guidance. Prerequisites: CCPJ 4064, CCPJ 5062, CCPJ 5361, CCPJ 5362; and either H UDK 4022, HUDK 4023, or H UDK 4024 or approved substitutes. N ormally, a minimum of two semesters is required at 2 points per term. Additional points of credit may be added only with the approval of the instructor. Special fee: $\$ 20$.

## CCPJ 5265. Supervised field-

 work in secondary school counseling (2-4)Faculty. Required: W ritten application by the Last W ednesday in September for Spring and Summer and by the First W ednesday in February for Autumn and permission of the instructor. Limited to second-year students specializing in secondary guidance. Prerequisites: CCPJ 4064, CCPJ 5062, CCPJ 5361, CCPJ 5025; and either HUDK 4022, HUDK 4023, or HUDK 4024; or approved substitutes. N ormally a minimum of two semesters is required at 2 points per term. Additional points of credit may be added only with the approval of the instructor. Special fee: $\$ 20$.

## CCPJ 6260. Advanced fieldwork

 (2-4)Faculty. (Coordinator) and Faculty. Permission required. Limited to advanced students who have completed the regular fieldwork sequence in their area of concentra tion. Registration not limited to one semester.

CCPJ 6460z. Internship in counseling psychology (0-6)
Professor Carter. Permission
required. For doctoral students only. Supervised experience in approved and appropriate agencies, institutions, and establishments.

## Practica

## CCPJ 5025. Group counseling

 (3)Professor Constantine. Students will explore the functions of group counseling in meeting client needs. Emphasis will be placed on theory and principles of group process, and on the development of group skills through participation in class role plays and in a group counseling experience. Attention to the practice of effective group leadership will also be addressed.

## CCPJ 5360. Practicum in career

 and personal counseling (4)Professor Carter. (Coordinator) and Faculty. Limited enrollment. Required: written application by June 1 for either semester of the next academic year, permission of the instructor, and concurrent registration for CCPX 5630. Prerequisites: CCPJ 4064, CCPJ 5062, CCPJ 5361, CCPJ 5025, HUDK 4022 or HUDK 4023 or HUDK 4024 or their equival ents. Limited to second-year students (30 or more points) majoring in counseling. Supervised practice in vocational appraisal and short-term educational and vocational counseling. Students work with clients of the Center for Psychological Services. Special fee: $\$ 115$.

## CCPJ 5361. Counseling skills

 I\&II (3)Autumn: Faculty; Spring: Professor Brandenburg. Permission required. Limited enrollment. Prerequisite: for counseling psychology majors, CCPJ 4064 completed or taken concurrently; CCPJ 4064 recommended but not required of other students. A laboratory experience for counsel ors and others in the hel ping professions. Practice in clarifying, understanding, and responding to personal communications. Graduated exercises and videotapes are used to devel op counseling and interviewing skills, and desi rable counsel or attitudes. Special fee: $\$ 20$.

CCPJ 5362. Group dynamics (4) Faculty. Permission required. Enrollment limited. Special hours and dates. Social processes in groups and their impact on individual behavior. In addition to a series of lectures/discussions, students are required to participate as members of an experiential group designed to provide opportunities for learning about group dynamics through an examination of power, authority, leadership, intergroup and interpersonal processes. Special fee: \$120.

CCPJ 5363. Practicum in educational, career, and personal counseling in school settings (3) Faculty. Permission required. Pre requisite: CCPJ 4064, CCPJ 5062 CCPJ 5361, CCPJ 5025, HUD M 5059 and HUDK 4022 or 4023 Students take responsibility for counseling under supervision.

CCPJ 5364z. Advanced practicum in cross-cultural counseling and psychotherapy
(4) - each term 2 credits Faculty. Concurrent registration for CCPX 5630. Course will involve a weekly seminar, client assignments with individual supervision, and discussion of culturally relevant clinical interviews. Prerequisites: CCPJ 4064, CCPJ 5062, CCPJ 5361 I\&II, CCPJ 5362, HUDK 4022 or HUDK 4023 or HUDK 4024.

CCPJ 5368. Supervision and teaching of counseling (0-2) Permission required. Prerequisite: successful completion of appropriate practica in individual and/or group counseling. Experience in practicum supervision and related teaching activities under the guidance of a faculty member. Enrollment not limited to oneterm.

CCPJ 6350. Externship in counseling psychology (0-3)
Faculty. Year-long placement in a field-setting for clinical experience (Required for Doctoral students)

CCPJ 6360z. Practice in psychological counseling (4 points each for Autumn and Spring) Faculty. Required: permission of the instructor, and concurrent registration for CCPX 5630. For advanced doctoral candidates in counsel ing psychology. Course is a
year long seminar for second year doctoral students. It involves a weekly seminar, client assignments with individual supervision, and exposure to a range of theoretical approaches to the clinical/counseling interview. Students will be counseling persons with personal, social, and educational problems in the Center for Psychological Services. Students register for 4 points each term.

CCPJ 6362. Group practicum (3) Faculty. Permission required. Students must submit written application by the midterm date of the preceding semester. Limited to advanced students with appropriate backgrounds in group work. Students will practice group counseling skills in selective settings.

CCPJ 6363. Advanced group practicum (1-2)
TBA. Permission required. Prerequisites: CCPJ 5025. A dvanced group supervision to provide service to clients in the Center for Psychological Services and/or outside agencies.

CCPJ 6368. Advanced supervision and teaching of counseling (0-2)
Permission required. Supervision and related teaching activities for advanced doctoral students under the guidance of a faculty member. Registration not limited to one term.

## Seminars

CCPJ 5560. Review of research in counseling psychology (3) Professor Yeh. Required of and limited to doctoral candidates in counseling psychology. Exploration of theoretical and methodological approaches in counseling psychology.

CCPJ 5563. Special topics and issues in counseling psychology (1-3)
Faculty. N ew and emerging developments, practices, and concerns in the field are examined and evaluated. Topics are announced in the preliminary and final course schedules distributed each semester. Registration not limited to oneterm.

CCPJ 6560. Advanced professional issues (1 A utumn, 0 Spring) Faculty. Students will familiarize themselves with a range of professional issues that effect their learning and development as Counseling Psychol ogists as well as having the opportunity to explore topics not currently available in the curricuIum. Limited to doctoral students in psychology.

CCPJ 6569. Professional ethics and standards in psychology (3) Professor Brandenburg. Ethics and standards of psychological practice and research. Limited to doctoral students in psychology. Others by special permission.

CCPJ 6572-CCPJ 6579. Research practicum in counseling psychology
Permission of instructor required. Students participate in ongoing research under the direction of a faculty member. Participation includes formulation of hypotheses, identification of appropriate variables and measures, data collection and analysis, and preparation of research reports. Students register for two consecutive terms. CCPJ 6572. Multicultural competencies (2-3) Professor Constantine
CCPJ 6573. Cross cultural research (2-3) Professor Yeh CCPJ 6575. Research models and procedures with racial/cultural emphases (2-3) Professor Carter.
CCPJ 6577. Psychological
interventions with older per-
sons (2-3) Dr. K ramer.
CCPJ 6578. Sexual harass-
ment, psychology of the undergraduate, gender and
leadership (2-3) Professor Brandenburg.
CCPJ 6579. Racial cultural
influences in career, cogni-
tion, and health (2-3) Profes sor Gushue.

CCPJ 7502. Dissertation seminar (1-3)
Permission required. Prerequisite CCPJ 5560 and CCPJ 6572-CCP 6579. Development of doctoral dissertations and presentation of plans for approval. Registration limited to two terms. For requirements, see section in catal og on Continuous Registration for Ed.D./Ph.D. degrees

CCPJ 7572. Advanced research practicum in counseling psychology (0)
Permission required. Prerequisite: CCPJ 6572-79. This course is a continuation of CCPJ 6572-79 and is only open to students who have completed two semesters of the prerequisite.

## Independent Study and Research

Students may register for intensive individual study of a topic of special interest. Registration in independent study is by permission of the instructor under whose guidance the work will be undertaken. Credit may range from 1 to 3 points each term except for CCPJ 8900 (Dissertation Advisement); and registration is not limited to one term. H ours for individual conferences are to be arranged.

CCPJ 4902. Research and independent study in psychological counseling (1-3 each course)
CCPJ 6902. Advanced research and independent study in counseling psychology (1-3 each course) CCPJ 8900. Dissertation advisement (0 each course)

## Clinical Psychology

Program Coordinator and Director of Clinical Training: Professor Barry A. Farber

## D egrees Offered:

D octor of Education (Ed.D.)* Doctor of Philosophy (Ph.D.) (Code: TXC)
M aster of Science (M.S.)
n passant

## *currently not accepting students

## Spedial Application Requirements/I nformation:

## Doctor of Philosophy

1. A bachel or's degree from a regionally accredited college or university or its equivalent in another country. An applicant who applies while still an undergraduate can be
accepted only on condition that the degree be recei ved in time for enrollment. The undergraduate transcript must include a course in sta tistics and at least nine additional credits from among the following areas, at least one of which should include a laboratory experience: personality, social psychology, developmental psychology, abnormal, learning theory, and experimental psychology. An applicant may be accepted with a deficiency in one of these areas on condition that the deficiency be remedied (either during the summer or, without degree credit, during the first semester).
2. Clinical and Research Experience: Though not required, the Program values the additional evidence of maturity, competence, and capacity for responsibility that comes from a broad range of work and life experiences. Thus, most students admitted to the program have engaged, after college, in both supervised psychological research and some type of supervised work in a clinical setting.
3. Graduate Record Examination (GRE): Applicants must submit the results of the GRE Aptitude tests and the GRE Advanced Examinations in Psychology, taken no more than two years prior to the date of the application. Unless English is not the applicant's first language, scores on the Verbal and Quantitative tests and the Advanced Test of less than 650 will make acceptance less likely. On test retakes, the Admissions Committee will consider the higher scores. A pplicants are urged to take the GRE no later than N ovember.
4. References: Applicants must submit at least two letters of recommendation from individual s able to comment on their scholarly and personal qualifications.
5. Personal Statement: A pplicants should try to say something about the range of their interests and experience, attempting to give the Admissions Committee a flavor of the person behind the application.

A pplicants whose paper qualifications appear most promising are invited to a personal interview, usually during the month of M arch. As a rule, no applicant will be accepted on the basis of written application al one. A pplicants are interviewed by one student and one faculty member of the Admissions Committee. All material included in the admissions procedure is accorded professional confidentiality by the Committee. The fact that students submit their applications with this knowledge constitutes permission to have these materials read by both faculty and student members of the Committee.

## Program D escription:

The Clinical Psychology Program offers a course of scholarly/professional education leading to the degree of Doctor of Philosophy (Ph.D.). The M aster of Science (M.S.) and M aster of Philosophy (M.Phil.) degrees are earned en passant.

In the doctoral program students are prepared for professional work in community agencies, hospitals, research centers, colleges and universities, and independent practice. It is accredited by the A merican Psychological Association. Completing a 100-point doctoral degree, including an internship, typically takes five to seven years. Practicum work is done in the Teachers College Center for Educational and

Psychological Services (Director: Dr. Dinelia R osa).

The doctoral program has been continuously accredited by the A merican Psychological Association since accreditation was initiated in 1948. N otable graduates both before and after 1948 include Virginia A xline, Albert Ellis, Chaim Ginott, H elen Singer K aplan, M. Powell Lawton, Perry London, Rollo M ay, and Carl R ogers. Our current training model is that of the Scholar-Practitioner. This model best reflects the traditional strengths of this program (e.g., equal weight placed on scholarship and practice, significant faculty involvement in community and professional activities, and faculty scholarship that includes but is not restricted to empirical research).

Our scholar-practitioner model means that we are dedicated to training clinically proficient students who are al so able to expertly anal yze, discuss, and generate scholarly materials, whether in the form of empirical research or theoretical exposition. We fully expect our students' work to be constantly informed by traditional and emerging scholarship in the field. Conversely, we expect our students' work to give rise to theoretical and technique oriented questions that can become the basis for scholarly enterprise. Further, we are committed to the belief that training as a clinical psychologist must be deeply rooted in psychology itself, its body of knowledge, methods, and ethical principles which form the basis and context of clinical practice.

The theoretical orientation of the Program may be broadly described as psychodynamic. Although we offer exposure to other perspectives (e.g., cogni-tive-behavioral therapy, family
therapy), the Program emphasizes instruction in a variety of psychodynamic models, including traditional insight-oriented psychotherapy, ego psychology, interpersonal approaches, short-term therapy, self psychology and object relations. Thus, the primary objective of the program is to train psycho-dynamically-informed clinical psychologists who are prepared for research and practice with a diverse population in a variety of settings. Increasingly, the Program is emphasizing work in the child-clinical area.

The Program shares an inhouse clinic (The Center for Educational and Psychological Services) with several other College programs. All clinical psychology doctoral students are staff members in the Center after their first semester in the Program, and carry a regular caseload of clients. The Center sponsors a weekly case conference, at which students present and discuss cases. Clinical work is supervised by core faculty members or by adjunct faculty who are psychologists in private practice in N ew York. Students usually carry four clients as part of their psychotherapy practicum and receive two hours of supervision each week with two different supervisors.

## D egree Requirements:

## Doctor of Philosophy

(Code: TXC)
The Program requires:

1. The completion of 100 points of academic credit during three to four years of residence at the College;
2. A full-time, twelve month clinical internship during the fourth or fifth year of study;
3. An original piece of empirical research, which al so serves as a qual ifying paper, to be completed during the second year of study;
4. A passing grade on the certification examination (on R esearch M ethods) during the third year of study;
5. A case presentation and accompanying paper during the third year, demonstrating the student's ability to integrate theory, research, and practice; and
6. A doctoral dissertation, which must be completed no later than the seventh year after matriculation

First Year
During their first year of study, doctoral students typically take the following didactic courses: Professional and Ethical Issues in Clinical Psychology; Personality and Psychopathology; DSM IV; Psychological M ear surement; A pplied Regression Anal ysis; Research M ethods I\&II; Developmental Psychopathology; and Dynamic Approaches to Psychotherapy. Students al so take two semesters of psychological testing and a course in clinical interviewing. M any students begin working with faculty members on research during this first year.

## Second Y ear

D uring their second year, students' didactic courses include: Brain and Behavior; Experimental Design; Emotion and H ealth in Clinical Practice; Psychotherapy with Children; H istory and Systems; Cognitive, Behavioral and Interpersonal Therapies; the Evolution of Freud's Psychological Theories; and Object Relations The ory. In addition, students sign up for a full year of research practicum with a faculty member (culminating in an empirical Second-Year Project) and a full year clinical practicum.

Third Year
Third year didactic courses include Group Dynamics, Short-term Dynamic Psychotherapies; Transference and Countertransference; Empirical

Bases of Psychotherapy; and Dissertation Seminar. There is al so a full year clinical practicum.

Fourth and $F$ ifth $Y$ ear Fourth year features an optional clinical practicum but is typically devoted to work on the dissertation. Year five is usually spent on a full-year clinical internship. Students who elect either a special childtrack or neuropsychology-track take additional didactic courses and practica. Elective courses for all students include Shortterm Dynamic Psychotherapy, Forensic Psychol ogy, Advanced Cognitive-Behavioral Therapy, W omen and $M$ ental $H$ ealth, Family Counseling and Therapy, and Assessment and Treatment of Alcohol and Chemical Dependency.

The program allows only 12 points of graduate work from another institution to be transferred. N o transfer credits are awarded for practica. Coordinator: Professor Farber

Financial A id (D octoral Program) Teachers College has three scholarship funds: General, M inority and International Student. The College also arranges with banks a variety of student loans, most of them repayment- and interestdeferred. Limited work study funds may al so be available.

Since 1993, the Clinical Psychology Program has also granted partial scholarships via the J ames S. Scappaticcio Fellowship for Gay M en and Lesbian doctoral candidates in Clinical Psychology. Tuition grants are available for one or two "self-identified gay clinical doctoral candidates"; small grant-in-aids are also made available for research on topics relevant to homosexuality, including psychological and/or psychosocial aspects of AIDS or AIDS treatment.

The program currently does not have N IM H-funded traineeships to offer. M ost doctoral students with significant financial need obtain help in the form of a tuition scholarship that covers approximately $30 \%$ of the cost of a year's tuition. M ost students al so work part-time to cover expenses.

Student and Faculty Research Despite the small size of the faculty, the range of both student and faculty research in recent years has been broad. R epresentative faculty research can be found elsewhere in this Catalog. Examples of recently completed student dissertations include: "Internal ized shame, representations of supervisory process, \& trainees' perceptions of nondisclosure in psychotherapy supervision" (Sponsor: B arry Farber); "O urselves, our Bodies: Conflating the Psychical with the Physical in the Context of Silencing the Self, Perfectionism, and Gender Role" (Sponsor: Barry Farber); "Gender Differences in Object Relations \& D efensive Style" (Sponsor: Barry Farber); "The Influence of Casual Attributions of the Psychological Adjustment of Post-treatment Adolescent Cancer Survivors" (Sponsor: B arry Farber); "General Family Functioning, Parental Bonding, and Attachment Style: Familial Factors Influencing Severity and Type of Symptomatology in Adult W omen who Report Childhood Sexual Abuse and $N$ on-A bused Psychiatric O ut-Patients"
(Sponsor: Leah Blumberg Lapidus); "Psychological Differentiation and Patterns of A rousal in Binge-Purgers, Impulsives and Normal Controls U nder Interpersonal and Task Conditions" (Sponsor: Leah Blumberg Lapidus); "The Relationships A mong A cculturation Style, Family Dynamics, and Adoloscent Psychopathology and Competence
in Immigrant and N on-Immigrant Dominicans" (Sponsor: Leah Blumberg Lapidus)" "Social Support and Psychological Distress in Late Life: The M oderating Effects of Perceived Control and Attachment" (Sponsor: Elizabeth Midlarsky); "An Investigation of Consulting between Clergy and Mental H ealth Professionals: A Cross-Sectional Survey of Rabbis and Psychologists: (Sponsor: Elizabeth M idlarsky); "The W ell-being of Daughters Caring for their Elderly M others: The R ol e of A ttachment Style and Relationship Quality" (Sponsor: Elizabeth Midlarsky)" "A Prospective Study of $M$ edication Compliance in Out-patients with Schizophrenia: The R el evance of H ealth Beliefs" (X avier Amador); The Effects of Prior Exposure to M ental IIIness on Juridicial Decision Making in Legal Cases Involving the Insanity Defense" (Sponsor X avier Amador).

## Courses:

N ote that 4000-level courses are generally open to non-majors, as are certain 5000-level courses. See listings below for prerequisites and limitations on enrollment.

## CCPX 4000. Introduction to applied psychology (3)

Professor M idlarsky. This course is designed to provide an introduction to multidisciplinary approaches to mental health including clinical psychology, school psychology, pediatric psychology, forensic and health psychology.

## CCPX 4010. Psychological perspectives on critical social prob-

 lems (3)Professor Midlarsky. Psychological perspectives on social problems such as eating disorders, domestic violence, AIDS and HIV infection, and mental health in late life.

CCPX 4030. Psychology of adjustment (3)
Dr. Pearson-Brok. H eal thy and pathological adjustment throughout the life span: stress, defense mechanisms, and coping.

## CCPX 4032. Assessment and

 treatment of alcohol and chemical dependency (3)TBA. Overview of the clinical principles governing assessment and treatment of addictive disorders; stages of addiction; issues of comorbidity; resistances to treatment.

CCPX 4033. Advanced clinical interventions with addicted patients and families (3)
Permission required. Prerequisite: CCPX 4032. Focus on developing advanced alcohol-specific intervention techniques, and group and family counseling skills for work with addicted individuals and their families.

## CCPX 4035. Personality and behavior change (3)

Dr. Pearson-Brok. Review of the major theories of personality; mechanisms of behavioral change.

## CCPX 4036. Psychology of

 human intimacy (3)TBA. O verview of issues in the fields of interpersonal relationships and sexual ity: developmental theories, dating and mating, gender differences and similarities; sexual behaviors and sexual victimization.

CCPX 4038. Comparative psychotherapies (3)
Professor Farber. Survey and analysis of representative psychotherapies in current practice: psychoanalytic, neo-Freudian, Gestalt, Jungian, client-centered, existential, behavior therapy, and others.

## CCPX 4039. Critical perspec-

 tives on nontraditional psychotherapies (3)Dr. M enahem. Overview and evaluation of nontraditional psychothera peutic approaches including existential psychotherapy, Eriksonian hypnosis, transpersonal therapy, and Eastern-oriented models.

CCPX 4120. Psychotherapy through fiction and film (3) Professor Farber. Psychotherapy, the therapist, and psychopathology as reflected in current fiction and film.

## CCPX 4121. Psychology and

## Shakespeare (3)

TBA. Understanding personality, motivation, and psychopathology, including aspects of culture and gender through critical anal yses of Shakespeare's plays and characters.

CCPX 4125. Women and mental health (3)
Dr. Bender. Stressors, manifestations, and treatment of psychopathology in women; theories of K Iein, H orney, Thompson, and others.

CCPX 4126. The mother-child matrix: developmental and clinical implications (3)
TBA. The mother-child relationship: Implications for devel opment and influence on clinical theory and practice, focus on theories of parenting, ruptures in the relationship and therapy with mothers and children.

## CCPX 4150. Introduction to

 forensic psychology (3).Professor Lapidus. The practice and application of forensic psychology to medical-legal problems and nomenclature in diagnosis, eval uation, assessment, treatment, and testimony regarding criminal behavior, psychopathology, and civil, family and criminal law.

## CCPX 4230. Fieldwork in applied psychology (3)

Professor Midlarsky. Supervised practice in field placements.

CCPX 5022. Emotions \& health in psychological practice (3) Professor Bonanno. This course covers the impact of overwhelming emotions on human heal th and self-regulatory responses. The role of culture in these responses is explored, as well as historical context and theoretical perspectives.

CCPX 5030. Ethical and professional issues in clinical psychology (1)
Professor Schonbar and Professor Bullitt. Limited to doctoral and postdoctoral students in clinical psychology. Orientation to program and field; ethical and professional issues.

CCPX 5032. Personality and psychopathology (3)
Professor M idlarsky. M ajor clinical disorders of adulthood viewed from clinical and research perspectives; current issues in diagnosis and treatment.

## CCPX 5033. The evolution of Freud's psychological theories (3)

 Dr. Reisner. Intensive examination of selected psychological works of Sigmund Freud from 1892 to 1940, focusing on theoretical innovations, modifications, and elaborations.
## CCPX 5034. D evelopmental

 psychopathology (3)Professor Farber. M ajor clinical syndromes of childhood and adolescence viewed within the context of normal development. Consideration of various theoretical, diagnostic, etiological, and therapeutic viewpoints.

## CCPX 5036. Transference and

 countertransference arising from differences in age, gender, racial, ethnic, and sexual orientation backgrounds (3)Dr. Pearson-Brok. Permission required. An experiential seminar for practicum students in clinical and counseling psychology who are working with clients different from themselves.

CCPX 5037. D ynamic psychotherapies (3)
Dr. Boulanger. Spring: open to doctoral candidates in psychology; others by permission. Theories of psychoanal ytic psychotherapy with emphasis on original sources: Freud, Winnicott, K ohut, ego psychology, and object relations theory.

CCPX 5038. Cognitive, behavioral, and interpersonal thera pies (3)
Professor Miller. D octoral candidates in psychol ogy; others by permission. Introduction to theory and technique underlying treatment within the following modalities: Cognitive, Behavioral, Interpersonal, and Short-Term Psychodynamic. The course will explore the application of these various treatment approaches to a range of disorders including Depressive Disorders, Anxiety Disorders, OCD, and Schizophrenia.

CCPX 5039. Empirical bases of psychotherapy (3)
Professor Farber. Permission required. A nalysis of research efforts concerned with investigating the process and outcome of psychotherapy. Emphasis on client, therapist, and system variables that contribute to the probability of therapeutic success.

## CCPX 5045. Psychotherapy,

 religious diversity \& spirituality (3) Professor Miller. No prerequisites. Open to Ph.D., M.A., \& M.Div. students in all departments. This course will focus on the role of religion and spiritual ity in psychotherapy. Research, theory and case material will be used to clarify healing dimensions of religion and spirituality. Discussion will focus on a re-examination of models of psyche and goals of treatment.CCPX 5048. Advanced cogni-tive-behavioral therapy (3)
Dr. Humpke. Permission required. Application of cognitive-behavioral interventions in clinical practice.

## CCPX 5102. Research in psy-

 chopathology, diagnosis, and legal applications of DSM IV (3) Dr. Amador.(A utumn); Professor Lapidus (Spring). Experimental research in psychopathology and legal diagnosis: empirical studies and applications of multiaxial diagnosis. Understanding and use of TheD iagnostic and Statistical $M$ anual of $M$ ental $D$ isorders (4th edition).CCPX 5230. Fieldwork in clinical psychology (1)A utumn, (0) Spring
Supervised practice in field placements. Sections: (1) Adult Externship (Professor Midlarsky). (2) Child Externship (Professor Miller).

CCPX 5330. Principles and techniques of clinical assessment (3)
TBA. Doctoral candidates in clinical, counseling, and school psychology. Theory and practice of assessing individual personality functioning and styles of adjustment through observation, interview, and diagnostic instruments. Course requir rements include a laboratory experience. Special fee: $\$ 150$.

CCPX 5333. Practicum in clinical assessment (1 for Spring, Autumn, and 0-1 for Summer) Professor Backfield. Permission required. Supervised practice in assessment as staff members of the Center for Psychol ogical Services.

CCPX 5334. Clinical assessment and research with children and adolescents (3)
Dr. K entgen. Doctoral candidates in clinical, counseling, and school psychology. Psychological assessment of children and adolescents, including interviewing techniques, observational methods, and psychodiagnostic testing.

## CCPX 5531. Psychotherapy

 with children (3)Dr. R osegrant. O pen to doctoral students in psychology; others by permission. Introduction to contemporary model s of child psychotherapy to include Psychoeducational, Cognitive Behavioral, Interpersonal, and Psychodynamic. Emphasis will be upon a comparison of the theoretical foundations and techniques across paradigms.

CCPX 5532. Clinical issues: children from diverse backgrounds (3)

Professor Miller. Open to all students. The course will focus upon current research on risk and resiliency factors developed from within epidemiological, social, and intra-psychic perspectives. Research findings will be discussed within the context of theories of development.

CCPX 5533-CCPX 5534
Research methods in clinical psychology (3 each semester) CCPX 5533 Fall: Professor Bonanno. CCPX 5534 Spring: Dr. Amador Permission required. Design, methodology, and artifact in research. Development of research proposals. Critical review of journal articles.

CCPX 5535. Research practicum in clinical psychology (2)
Faculty. Permission required. Supervised research in clinical psychology.

## CCPX 5539. Clinical assess-

 ment: the interview (3)Professor R osa. D octoral students in clinical, counseling, school psychology, speech and hearing, learning disabilities, special education, and pre-doctoral students providing intake services at the Teachers College Clinic. Introductory didactic and practice seminar in clinical interviewing.

## CCPX 5542. Psychoanalytic

issues: theory and research (2-3) Examination of selected topics in psychoanal ytic theory and technique, e.g., dreams, transference, autobiographical memories.

## CCPX 5544. Cross-cultural

 issues in psychopathology, resilience and coping (2-3) Professor Lapidus. Doctoral and masters students in psychology, social work and public health. Others by permission. Examination of pathology and resilience in the context of cultural patterns of coping with devel opmental lifetasks and reactions to stress. Special fee: $\$ 50$.
## CCPX 5546. Research perspec-

 tives on critical social problems (3)Professor Midlarsky. Exploration of research and theory emerging from the interface of social and clinical psychology. Topics include helping, help-seeking, gender roles, aging and mental health, AIDS, and stress coping.

CCPX 5610. Clinical psychology colloquium (0)
Professor Bonanno (Coordinator), Clinical faculty and guest speakers. Permission required.

CCPX 5630. Case conference (0) Professor Rosa. (Coordinator). Permission required. Corequisite: CCPX 5333, CCPX 6335, CCPX 6336, CCPJ 5360, CCPJ 6360Z, or CCPJ 6364. For practicum students in the Center for Educational and Psychological Services. All trainees must attend at least five conferences each term.

CCPX 6020. History and systems of psychology (3) Professor Midlarsky. Survey of the history of psychology from the A ncient Greeks to the present Discussion of theoretical systems including Associationism, Struc-
turalism, Behaviorism, Psychoanalysis, and Existentialism.

CCPX 6332-CCPX 6333. Supervision of assessment, intake, educational, or abuse prevention family services (1-3) Professor Lapidus. Permission required. For post-internship students in clinical, and counseling, school psychology, and qualified doctoral and pre-doctoral supervisors of services in the Teachers College Clinic or in the community. Seminar and supervised practice in the teaching and supervision of clinical assessment and intake.

CCPX 6335. Practicum in clinical intervention (3-4; 0-2 during Summer)
Professor Farber. Permission required. For doctoral students in clinical psychology, two semesters, 4 points each semester. Supervised practice in psychotherapy as staff members of the Center for Psychological Services. Special fee: $\$ 115$ each semester; \$45 for Summer.

## CCPX 6336. Advanced

practicum in clinical interven-
tion (3-4; 0-2 during Summer) Professor Geller. Permission required. Prerequisite: CCPX 6335. For third-year doctoral students in clinical psychology. Special fee: $\$ 100$ each semester.

## CCPX 6338. Fourth-year

 practicum in clinical intervention (1)Professor Amador. Permission required. Prerequisite: CCPX 6336. For fourth-year students in clinical psychol ogy, two semesters, 1 point each semester.

## CCPX 6430Z. Internship in

 clinical psychology (0)Advanced doctoral students in clinical psychology. Experience under supervision in approved mental health agency. One year full-time or part-time equival ent.

## CCPX 6530. Short-term

 dynamic psychotherapy (2-3) Dr. K entgen. Permission required. For doctoral students in clinical, counseling, and school psychology. Focus on theoretical and technica aspects of short-term therapy; key concepts illustrated by clinical material presented by instructor and students.
## CCPX 6531. Psychological

 assessment and clinical practice (2)Professor Backfield. Permission required. Prerequisites: CCPX 5330, CCPX 5331. Emphasis on the interpretation of projective tests, and on the integration and reporting of multiple sources of assessment data.

CCPX 6532-CCPX 6533.
Advanced topics in clinical theory, research, and practice (2-3) Clinical Faculty and Invited Instructors (including Dr. S. Mitchell and Dr. J. Fosshage). Advanced doctoral candidates in clinical and counseling psychology; other candidates by permission (different sections may have different criteria). Seminars for the intensive study of special ized areas of theory, research, and practice for advanced students. Content varies

## CCPX 6534. Object relations

 and self psychology (2-3) Dr. K osseff. Permission required. British and American schools of object relations; discussion of the role of such clinical phenomena as internalization, splitting, regression, and projective identification.CCPX 6536. Postdoctoral seminar in clinical psychology (3) Professor Schonbar. Emphasis on the relationship between newly acquired knowledge of clinical theory and technique and the students' previously acquired research competence and interests.

CCPX 6538. Advanced object
relations theory (2-3)
TBA. Permission required. Prereauisite: CCPX 6534. Emphasis on clinical material illustrative of object relations phenomena.

## Independent Study and Research

Students may register for intensive individual study of a topic of special interest. Registration in independent study (CCPX 4900 and CCPX 6900) is by permission of the instructor under whose guidance the work will be undertaken. Credit may range from 1 to 3 points each term, and registration is not limited to one term.

Department of<br>Counseling and Clinical Psychology

H ours for individual conferences are to be arranged.

CCPX 4900. Research and independent study (1-3)

## CCPX 5110. Research appren-

ticeship (0-2)
Faculty. Permission required.
Involvement as a research extern in community agencies or as a research assistant to departmental faculty.

CCPX 6900. Advanced research and independent study (1-3)
Faculty. Permission required.
CCPX 7500. Dissertation seminar (1 each semester)
TBA. Permission required. Development of doctoral dissertations and presentation of plans for approval. Registration limited to two terms.

## CCPX 8900. Dissertation

advisement (0)
Psychology in Education
Program Coordinator: Professor
Elizabeth Midlarsky

## D egrees Offered:

Two Tracks:
Master of Arts in Psychology in Education: Applied Psychology (Code: TXA)
M aster of Arts in Psychology in Education: General Psychology
(Code: TXG)

## Special Application Requirements/Information:

At least one of the two required letters should be an academic reference. The G RE's are recommended but not required.

## Program D escription:

The A pplied Psychol ogy track aims to give students introductory training, at the graduate level, to personality and psychopathology, research methods in psychol ogy, psychological perspectives on social contexts and social problems, and psychotherapy. It includes clinical course work, and opportunities
to gain experience in rel evant fiel dwork and research, both inside and outside the classroom. The General Track is designed to provide students with a broad exposure to clinical psychology and to other areas of psychology that may be of interest to them.

W ith a M aster of A rts degree, graduates can find employment in research centers, clinics, and hospital s. Through their interaction with faculty and doctoral students in the Clinical Psychology program, they al so have the opportunity to strengthen their candidacy for doctoral study in psychology. Completion of the M.A. degree does not guarantee admission to a doctoral program, here or el sewhere, but outstanding students are likely to be more attractive candidates. Please note that differences between the masters-level and doctorallevel requirements can reduce the number of masters' credits that will be accepted for transfer to a doctoral program.

## D egree Requi rements:

The program for the M aster of Arts (M.A.) degree in Psychology in Education: A pplied Psychol ogy requires 32 credits which include a special project, fieldwork and research. The program is built around an 18credit core of courses. Degree requirements may be completed on a full-time basis in an academic or cal endar year (two semesters), or its equivalent in part-time study.

The program for the M aster of Arts (M.A.) degree in Psychology in Education: General Psychology requires 32 credits, at least 18 of which must be taken in Psychology. A special project also is required. This program may be completed in an academic or cal endar year (two semesters).

Thebasic curriculum for M.A. students include:

Required courses (total of six):

- CCPX 4010, Psychol ogical perspectives on critical social problems (3), Fall or Spring
- CCPX 4150, Introduction to forensic psychology (3), Fall


## Or

- CCPX 5102, Research in psychopathology, diagnosis, and legal appli cations of DSM IV, Spring (3)
- CCPX 5032, Personality and psychopathology, Fall or Spring (3)
- CCPX 5533 Research methods in clinical psychology, Spring (3), and

Two courses (totaling 6 credit hours) chosen from the fol lowing:

- CCPX 4038 Comparative psychotherapies, Fall or Summer (3)
- CCPX 5020 Emotions in health and psychological practice, Fall (3)
- CCPX 5034 Developmental psychopathology, Summer (3)
- CCPX 5045 Psychotherapy, religious diversity \& spirituality, Spring (3)

Suggested Electives:
Three of the elective courses must be non-CCPX and nonCCPJ courses to meet the College's foundations requirement. The following courses meet that requirement:

- C\&T 4080 N ormal and atypical development of young children (2-3)
- HUDM 4120, Basic concepts in statistics (3), or HUDM 4122, Probability and statistics (3)
- HUDM 4050, Introduction to measurement (2-3)
- HBSK 5033, Human clinical neuropsychology (3)
- HUDK 4120, The empirical study of human development (3)
- HUDK 4121, Development and Psychopathology

CCPX dectives should be chosen
from the fol lowing list:

- CCPX 4030, Psychology of adjustment
- CCPX 4032, A ssessment and treatment of al cohol and chemical dependency (3)
- CCPX 4035, Personality and behavior change (3)
- CCPX 4120, Psychotherapy through film and fiction (3)
- CCPX 4230, Fieldwork in clinical psychology (3)
- CCPX 4900, Research and independent study: clinical psychol ogy (3)
- CCPX 5039, Empirical bases of psychotherapy (3)
- CCPX 5531, Psychotherapy with children (3)
- CCPX 5532, Clinical issues: children from diverse backgrounds (3)
- CCPX 6532,6533 Special topics in clinical psychology (Topics vary) (3)

Plemse refer to course descriptions listed under Clinical Psychology: Courses

Chair: Professor J ames H.
Borland
Location: 306 M ain H all
Tel ephone: (212) 678-3765

## Programs:

Curriculum and Teaching
Early Childhood Education
Early Childhood Special Education
Elementary/Childhood
Education, Preservice
Gifted Education
Learning dis/A bilities
Reading and Learning dis/A bilities (Offered jointly with the Department of H ealth and Behavior Studies)

## Faculty:

## Professors:

Lucy M cCormick Calkins
Celia Genishi
Sharon Lynn K agan
D. Kim Reid

Frances Schoonmaker
Betty Lou W hitford
Leslie R. Williams
K aren Zumwalt

Adjunct Professor:
Lyn Corno
Beatrice Fennimore

## Associate Professors:

James H. Borland
A. Lin Goodwin

Barbara K iefer
N ancy Lesko
Susan Recchia
Marjorie Siegel
Celia Oyler

## Adjunct Associate Professors:

J oann J acullo-N oto
Sabrina H ope K ing
Lisa W right

## Assistant Professors

Beth Ferri
Michèle Genor
Michelle K night
Anne Sabatini

## Adjunct Assistant Professors:

Toni Bernard
Gloria Farber
Stephen Farenga
Valerie H enning-Piedmonte
J anet H offman
Sonja de Groot K im
N ancy K unz
K aren M egay-N espoli
Lori Langer de Ramirez
Eileen Marzola
Carol Prendergast
Judy Randi
M arnie Siff-K orpi
R obert Southworth

## Lecturers:

Valerie Bang-J ensen
Alison Rutter

## Instructors:

M egan Blumenriech
Theresa Colliton
Elizabeth Craig
J anet Crickmer
R obert Cunningham
Tricia G allagher-G eurtsen
Anne Glass
Tricia Giovacco-J ohnson
John Gray
Victoria H unt
K athy-A nneJ ordan
Linda K asarjian
Robert Lane
Julie Leopold
Carrie Lobman
R oberta N ewton
D orothy Peters
M ary Rowe
Theresa R uyter
Jan Valle
Donna Volpitta
For information about faculty and their scholarly and research interests, please refer to the "Faculty" section of the Catalog.

## Departmental Mission

The two broad goals of the Department of Curriculum and Teaching are to:

1. Contribute to the fields of early childhood education, early childhood special education, educational and instructional leadership, general curriculum design and theory,
gifted education, learning dis/A bilities, supervision and curriculum devel opment, and teacher education.
2. Prepare prospective teachers and other professionals to assume leadership roles in educational programs for learners of all ages.

We aim to educate leaders who will engage in inquiry into, and reform of, curriculum, teaching, the organization of schools, and teacher education. We are committed to understanding and working with children and adults in culturally and socially diverse field settings (e.g., schools, centers, homes, workplaces, neighborhoods). We approach our work from a critical and historical perspective, and cultivate an ethic of care and rigorous scholarship, taking collaborative approaches to inquiry, teaching, and governance. W e respect broad methods of learning and inquiry, and believe in the need for both qualitative and quantitative research methods.

Our intellectual and theoretical roots are deep in the Progressive Education tradition, which places high priority on direct experience in teaching, learning, and research; integration of the social, emotional, intellectual, and moral dimensions of education; and authentic respect for learners, the process of learning, and the wisdom gained through practice. We view meaning and truth as constructions, literally built through study, conversation, thought, writing, and critique in the context of a learning community.

Faculty and students in the Department participate in a number of interrelated communities, incorporating into them diverse individuals their respective cultures, life experiences, and points of view. Our central goal is to create, participate in, and nurture many learning
communities, while pursuing deeper understanding and mitigation of persistent problems of educational practice. Along the way, we del iberately educate prospective and experienced professionals and oursel ves about ways to initiate, sustain, and provideleadership for these learning communities in a variety of educational settings, including urban contexts and public schools.

Typical positions for which students are prepared include:

- Teacher or supervisor of:
- infancy or early childhood education
- early childhood special education
- elementary or secondary education
- learning dis/Abilities
- gifted education
- Director of:
- child-care center
- community or govern-ment-based organization or agency
- infant and parent center
- early childhood program
- College teacher in under-
graduate or graduate pro-
grams special izing in:
- infancy or early childhood education
- early childhood special education
- early childhood policy
- elementary or secondary education
- learning dis/A bilities
- gifted education
- curriculum devel opment
- research and theory in curriculum and teaching
- Administrator (such as assistant superintendent, consultant, coordinator, director) in charge of:
- curriculum and instruction
- curriculum research
- professional development
- special education
- gifted education
- Teacher-leader in programs for learners from infancy to adulthood
- Consultant or educational specialist in a school or nonschool agency.

Preservice and some inservice teacher education programs (the learning dis/A bilities program, for example) are designed to meet N ew York State and City teacher certification requirements. Require ments for school administrator/supervisor (SA S) may be met through courses incorporated in the Ed.M. degree.

## Programs in Curriculum and Teaching

## Areas of Specialization:

## M aster of Arts

There are two different types of M asters Programs within the
Department of Curriculum and Teaching: Preservice Programs and Inservice Programs.

Preservice M.A. programs are designed for people with little or no teaching experience or preparation who are seeking certification in Early Childhood Special Education, Elementary/Childhood Education, Gifted Education, or Learning dis/A bilities. The M.A. programs in Early Childhood Special Education, Elementary/ Childhood Education, and Learning dis/A bilities are registered with the State of N ew York, and graduates of these programs are recommended for certification in their respective fields. Preservice graduates of the M.A. program in Gifted Education can become certified by applying for certification directly to the State Education Department.

A student in these programs who wants to qualify for New York State teaching certification must complete the program and file for certification prior to February 1, 2004.
Teachers College is devel oping new programs to meet regula-
tions that go into effect after February 1, 2004. These programs will be outlined in next year's catalog.

Inservice M .A. programs are designed for people who are al ready certified or are provisi onally certified to teach in N ew York, in another state, or on another grade level and who seek a M asters of A rts degree in Curriculum and Teaching, Early Childhood Education, Early Childhood Special Education, Elementary/Childhood Education, Gifted Education, or Learning dis/A bilities. Graduates of inservice M.A. programs can become permanently certified by applying for permanent certification directly to the State Education Department.

There are currently eight M.A. programs in the Department of Curriculum and Teaching.

## Master of Education

The M aster of Education degree (Ed.M.) within the Department of Curriculum and Teaching affords students the opportunity to develop an area of expertise beyond that required for classroom teaching. The degree comprises 60 points. Thirty of those 60 points may be transferred from previous graduate work at another institution or at Teachers College, upon the recommendation of the student's program advisor. See specific programs for additional admission requirements.

## Doctoral Programs

The Department of Curriculum and Teaching offers a single D octor of Education program with nine areas of concentration. The program requires 90 points of graduate study beyond the Baccal aureate, 35 of which may be transferred from previous graduate work at other institutions, should they meet requirements of the Teachers College degree.

Applicants interested in the Ed.D. program in the Department of Curriculum and Teaching should consult the booklet, "Studying for the Ed.D.
D egree in the Department of Curriculum and Teaching," available from the Department of Curriculum and Teaching.

The concentrations within the
Ed.D. program are:

- Curriculum Studies
- Early Childhood Educa-tion- (specialization)
- Early Childhood Special Education
- Educational Leadership
- Gifted Education
- Learning dis/A bilities
- Reading and Language Arts
- Religious Education
- Research and Inquiry in Curriculum and Teaching
- School Change
- Teacher Education
- Urban and M ulticultural Education

Enrollment Requirements for
First-Year Ed.D. Students Every first-year Ed.D. student in the Department of Curriculum and Teaching is required to enroll in C\&T 5000, Theory and Inquiry in Curriculum and Teaching, in both the fall and the spring semesters of his or her first year. C\&T 5000 is a 6 -point course that meets for a double class session once per wedk, resulting in a minimum first-year enrollment of 12 points. A student can enroll for more than this minimum, but C\&T 5000 must be part of his or her first-year course of study. A first-year student is defined as a student who matriculates in the fall term or who matriculated in the previous spring or summer term and is enrolling for his or her first fall term.

C\&T 5000 is designed to make beginning doctoral students aware of important problems and issues in curriculum and teaching, to introduce students to methods of formulating questions and to modes of
inquiry appropriate to doctorallevel research, and to build a cohesive student cohort.

C\&T 5000 is a rigorous course, with respect to both the quantity and sophistication of the material for which students are held responsible. The course requires a commitment of time and effort commensurate with the norms of scholarship at the doctoral level.

It is our belief that the demands placed on the students by this course will benefit students and that those who complete the course and pass the certification examination will be well prepared to continue their doctoral studies successfully through the dissertation phase. Students accepted into the Ed.D. program will receive a list of course texts with their acceptance letters so they can begin their reading early.

## Spedal Application Requirements/I nformation:

For Inservice M.A. admission, please submit a resume and proof of early childhood, elementary or secondary school teacher certification (provisional or permanent) or proof that you have completed an accredited Elementary, Early Childhood or Secondary teacher preparation/student teaching program. (For admission requirements for the Pre service M.A., refer to the section on Elementary/Childhood Education- Preservice.) Please note that neither the Graduate Record Examination (GRE) nor the Miller A nal ogies Test is required for application to any of the M.A. programs in the D epartment of Curriculum and Teaching.

In addition to the above, Ed.M. students must provide evidence of a minimum of two years of successful teaching experience, and students seeking the Ed.D. degree must provide evidence
of a minimum of three years of successful teaching experience. Please note that neither the Graduate Record Examination (GRE) nor the Miller A nalogies Test is required for application to any of the Ed.M . programs in the Department of Curriculum and Teaching.

Admission to programs leading to the Ed.D. degree is determined on the basis of academic ability as evidenced by success in prior academic work and /or other measures of academic aptitude; demonstrable potential for research, field inquiry, or devel opment activities in education; and three years of successful teaching or equiva lent experience. All applicants are required to submit Graduate Record Examination (GRE) or Miller A nalogies Test scores that are no more than five years old, and are required to submit a writing sample. The Depart-
ment of Curriculum and Teaching evaluates Ed.D. applications once per year. The application deadline is January 2nd. Applications received after January 2nd will be evaluated in the following year.

## Curriculum and

Teaching
(Code: TYZ)
Program Coordinators: Professors Borland, Cal kins, K iefer, K night, Lesko, Siegel, W hitford, and Zumwalt

## D egrees Offered:

Master of Arts (M.A. Inservice) Master of Education (Ed.M.) Doctor of Education (Ed.D.)

## Spedial Application

## Requirements/Information:

R efer to departmental requirements section above.

## Program D escription:

The Program in Curriculum and Teaching is designed for experienced inservice teachers, administrators, and other edu-
cators who 1) have recei ved formal professional preparation in preschool through grade twelve teaching at an accredited college or university; 2) hold, or are eligible to receive, teacher certification; and/or 3) have a minimum of one year's head teaching experience (which must be assessed and approved by faculty).

Students will have opportunities to become expert in such areas as curriculum development, school change and reform initiatives, action research and other school-based inquiry strategies, and will gain perspectives on teaching as complex intellectual activity. The overarching intention of the program is to assist educators who expect to exert leadership in their school settings and with their colleagues. (See above for areas of concentration within this program.)

Any applicant seeking initial teacher certification should apply for the M.A. program in Elementary/Childhood Education - Preservice. Individuals working in areas related to education but who are not seeking teacher certification may engage in the professional study of Curriculum and Teaching. Admission to degree study will depend on faculty assessment and approval of prior participation in education-related activities (other than classroom teaching) or work in educational institutions.

## D egree R equirements:

A ll the M aster of A rts programs includefied experience or practica.

## Master of Arts

Thebasic curriculum for M.A. students includes:
C urriculum D esign (3 points):

- Choose from C\&T 4023, Differentiated curriculum for the gifted and talented, C\&T 4052, Designing curriculum and instruction, or C\&T

5114, Cognitive curriculum in early childhood education.
Teaching Strategies (3 points):

- Choose from C\&T 4005, Principles of teaching and learning or C\&T 4121, Early childhood teaching strategies within a social context.
B asic Course in Curriculum
Theory (3 points):
- C\&T 4002, Basic course in theory of curriculum design
- Other than the above courses at least one course addressing one of the following:
a) subject focus, b) age focus, or c) setting/context focus.
D epartment requirements:
- C\&T 4501, Teacher educa tion lectures (1 point)
- C\&T 4502, M aster's project (1 point)
- A minimum of 12 points in the department
- At least 3 courses (at least 2 points each) outside of the department
- Completion of the action research project (0 points)

Thebasic curriculum for M.A. students with a concentration in
Elementary/Secondary (TYZT)
includes:

- At least one of the following: C\&T 4130, Current issues in elementary education (3 points), or C\&T 4145, The education of youth and adol escents (3 points)
- At least one of the following: C\&T 4020, The environments of school (2-3 points), or C\&T 4118, Theoretical foundations of childhood education (2-3 points), or C\&T 5036, Child and family policy (2-3 points)
D epartment requirements:
- C\&T 4501, Teacher educa tion lectures (1 point)
- C\&T 4502, M aster's project (1 point)
- A minimum of 12 points in Department
- At least 3 courses (at least 2 points each) outside Department
- Completion of M aster's A ction Research Project (0 points)

The basic curriculum for M .A . students with a concentration in Reading/W riting (TYZL) indudes:

- C\&T 4138, Literacy instruction in the early and middle years (6 points)
- C\&T 4151, The teaching of writing (3 points)
- C\&T 4140, Literature for younger children (2-3 points) or C\&T 4141, Litera ture for older children (2-3 points) or another course in children's literature.
- Depending on gradelevel focus and area of interest, choose from: C\&T 4835, C\&T 5037, C\&T 5042, C\&T 5800, A\&HL 4058, H BSK 4072, HBSK 4074, HBSK 5373, HBSK 5376, HUDK 4010, HUDK 5024, HUDK 5091
- At least one of the following: C\&T 4113, Early childhood methods and programs (3 points),
C\&T 4130, Current issues in elementary education (3 points), or C\&T 4145, The education of youth and adol escents (3 points)
Department requirements:
- C\&T 4501, Teacher education lectures (1 point)
- C\&T 4502, M aster's project (1 point)
- A minimum of 12 points in Department
- At least 3 courses (at least 2 points each) outside Department
- Completion of M aster's A ction Research Project (0 points)


## M aster of Education

The basic curriculum for Ed.M. students includes:
Core:

- C\&T 4002, Basic course in theory of curriculum design (3 points)
- C\&T 4004, Basic course in school improvement (3 points)
- C\&T 4005, Principles of teaching and learning (3 points)
- Practical Curriculum Design Course (at least one) of the following: C\&T 4052, Designing curriculum and instruction (2-3 points), C\&T 4023, Differentiated curriculum for the gifted-talented (2-3 points), C\&T 5114, Cognitive curriculum in early childhood education (3 points), or MSTU 4083, Instructional technology \& media systems (3 points).
- One course in social-historical foundations of curriculum and teaching. Choose from: C\&T 4118, Theoretical foundations of childhood education (2-3 points), C\&T 5036, Child and family policy (2-3 points), C\&T 4020, The envi ronments of school (2-3 points), C\&T 5074, Curriculum and teaching policy (3 points).
- Beyond the core courses, students' programs are individually planned with their advisors, based on their professional goals and interests.


## Doctor of Education

The basic curriculum for E d.D. students indudes:
Core

- C\&T 5000, Theory and inquiry in curriculum and teaching (6 points each semester, fall and spring, of the first year)
$R$ esearch $R$ equirements:
- HUDM 4122, Probability and statistical inference (3 points)
- HUDM 5122, Applied regression anal ysis (3 points)
- C\&T 7500, Dissertation seminar in curriculum and teaching (1-3 points)
- C\&T 7501 Dissertation seminar in curriculum and teaching (1-3 points), plus one additional course in research methods (2-3 points).

Other courses are selected in consultation with an advisor.

Concentrations include:

- Curriculum Studies
- Early Childhood Educa-tion-(specialization)
- Early Childhood Policy
- Early Childhood Special Education
- Educational Leadership
- Gifted Education
- Learning dis/A bilities
- Reading and Language Arts
- Religious Education
- Research and Inquiry in Curriculum and Teaching
- School Change
- Teacher Education
- Urban and Multicultural Education


## Early Childhood

## Education

(Code: TY D)
Program Coordinators: Professors Genishi, K agan, and W illiams

## D egrees Offered:

M aster of Arts (M.A.) M aster of Education (Ed.M.) D octor of Education (Ed.D.), avail able through Curriculum and Teaching (Code:TYZ)

## Special Application

 Requirements// nformation: The $M$ aster of Arts program in Early Childhood is an inservice program, primarily for people al ready certified (or provisionally certified) to teach. Consideration may al so be given to applicants whose training and experience are in closely allied professional fields, but they may have to take additional credits to meet the requirements for the M.A.Students who seek preparation in Early Childhood Education and are not certified may seek admission to the degree program in Elementary/Childhood Education-Preservice and can concentrate in the early childhood grades by completing

14-15 credits of electives in early childhood courses and doing one semester of student teaching at the kindergarten or pre-kindergarten level.

Admission to programs leading to the Ed.D. degree is determined on the basis of academic ability as evidenced by success in prior academic work and /or other measures of academic aptitude; demonstrable potential for research, field inquiry, or development activities in education; and three years of successful teaching or equivalent experience. All applicants are required to submit Graduate Record Examination (GRE) or Miller A nalogies Test scores that are no more than five years old, and are required to submit a writing sample. The D epartment of Curriculum and Teaching evaluates Ed.D. applications once per year. The application deadline is J anuary 2nd. A pplications received after January 2nd will be evaluated in the following year.

## Program D escription:

The program in Early Childhood Education is concerned with the education of children from birth to eight years of age. It is designed to accomplish three major goals: (1) to rel ate research on the growth, devel opment, and education of young children with practice in current early childhood educational programs, including curriculum development and program assessment and evaluation; (2) to strengthen and augment the competencies of teachers and other educational personnel; (3) to investigate historical, current, and projected issues central to early childhood education; and (4) to use practice and research to improve public policy.

The Ed.M. program in Early Childhood Education focuses on leadership in early childhood settings. It offers students
who have al ready completed the M.A (or the equivalent) an opportunity for more specialized and advanced study, training, and practice in the field.

At the doctoral level, the concentration in Early Childhood Education prepares candidates for college teaching, research, policy, and other leadership positions in early childhood education. The concentration is highly selective, aiming to identify and train individuals whose prior education and experience, whether or not it has been specifically in the field of early childhood, gives promise of the ability to develop modes of inquiry suitable to the field's complexities.

## D egree Requirements:

## M aster of Arts

The basic curriculum for M.A. students includes:
Core:

- C\&T 4113, Early childhood methods and programs (3 points)
- C\&T 4118, Theoretical foundations of childhood education (2-3 points)
- C\&T 5321, Practicum in early childhood education (3-4 points)
- A minimum of 12 points within the department
- A minimum of 18 points rel ated to early childhood
- At least 3 courses outside the department for at least 2 points each
- M aster's project (0 points)


## Master of Education

The basic curriculum for Ed.M. students includes:
Core:

- C\&T 4002, Basic course in theory of curriculum design (3 points)
- C\&T 4004, Basic course in school improvement (3 points)
- C\&T 4005, Principles of teaching and learning (3 points)
- C\&T 5513, Seminar in early childhood education (3 points)
- C\&T 5514, Seminar in early childhood education (3 points) or C\&T 5036, Child and family policy (2-3 points)
Beyond the core courses, students' programs are individually planned with their advisors, based on their professional goals and interests.


## Doctor of Education

The basic curriculum for E d.D. students indudes:
Core C\&T 5000, Theory and inquiry in curriculum and teaching ( 6 points each semester, fall and spring, of the first year)
Research Requirements: H UDM 4122, Probability and statistical inference (3 points), HUDM 5122, Applied regression analysis (3 points), C\&T 7500, Dissertation seminar in curriculum and teaching (1-3 points), C\&T 7501 Dissertation seminar in curriculum and teaching (1-3 points), plus one additional course in research methods (2-3 points).

Other courses are selected in consultation with an advisor.

## Early Childhood Special

## Education

(Code: TEC)
Program Coordinator: Professor Recchia

## D egrees Offered:

M aster of Arts (M.A.)
Master of Education (Ed.M.)
Doctor of Education (Ed.D.), avail able through Curriculum and Teaching (Code:TYZ)

## Spedial Application

## Requirements/Information:

A student in this program who wants to qual ify for New York State teaching certification must complete the program and file for certification prior to February 1, 2004. Teachers College is devel oping new pro-
grams to meet regulations that go into effect after February 1, 2004. These programs will be outlined in next year's catalog.

Admission to programs leading to the Ed.D. degree is determined on the basis of academic ability as evidenced by success in prior academic work and /or other measures of academic aptitude; demonstrable potential for research, field inquiry, or devel opment activities in education; and three years of successful teaching or equivalent experience. All applicants are required to submit G raduate Record Examination (GRE) or Miller A nal ogies Test scores that are no more than five years old, and are required to submit a writing sample. The Department of Curriculum and Teaching evaluates Ed.D. applications once per year. The application deadline is January 2nd. A pplications received after January 2nd will be evaluated in the following year

## Program D escription:

Early Childhood Special Education is a rapidly expanding field providing early intervention and educational services to infants, toddlers, and preschool children with disabilities (including those at-risk for devel oping disabilities) and their families in home, hospital, and centerbased settings. This program prepares educators to work with young children and their families by emphasizing early development, curriculum, and instructional strategies within a family-oriented, child-focused model. Students are prepared to work with a range of ages and disabilities, and to apply their skills within both inclusive and self-contai ned settings.

The course of study for the M.A. in Early Childhood Special Education makes provision for students with backgrounds in special education, for students with backgrounds in
education but not in special education, and for students with no previous course work in the field of education. As a result, the number of credits required for graduation and teacher certification and the course of study varies as a function of the student's previous educational history.

Students with special education backgrounds can complete the course of study for the M aster of Arts degree by earning 32 credits of course work, as can those with education backgrounds outside the field of special education.

Students with no previous course work in education must complete at least 36 credits in order to obtain the M aster of Arts degree and the department's recommendation for provisional certification as a teacher of special education.

The Ed.M. Program in Early Childhood Special Education offers students who have al ready completed the M aster of Arts degree (or the equivalent) an opportunity for more specialized and advanced study, training, and practice in the field. Ed.M. students take a series of interdisciplinary courses focused on their individual areas of interest (e.g., infant development and practice, working with families, working in inclusive settings, curriculum development, etc.). Teaching and research practica are incorporated into the program.

The Department of Curriculum and Teaching offers a doctoral concentration in Early Childhood Special Education. This concentration prepares students for careers rel ated to leadership and advocacy in the field, research and scholarship, and higher education and teacher preparation programs. Core courses emphasize theory and foundations in general and early childhood education and
research methods and training. Seminars and advanced practica focus on special topics in the field. Opportunities for involvement in faculty-sponsored research and professional devel opment activities are an integral part of the program concentration.

## D egree Requirements:

## M aster of Arts

C ourse requir ements for M.A. students with badkgrounds in Special Education indude (minimum of 32 points):
Core(19-23 points):

- C\&T 4080, N ormal and atypical devel opment in young children (2-3)
- C\&T 4081, Programs for young children with disabilities (2-3)
- C\&T 4082, Assessment of young children with exceptionalities (2-3)
- C\&T 4083, W orking with families of young children with disabilities (2-3)
- C\&T 4302, Supervised practicum in the assessment of young children with exceptional ities or H BSE 4300, Supervised practicum in the educational assessment of exceptional children (2-3)
- C\&T 4308, Pre-Student teaching practicum in early childhood special education (3)
- C\&T 4708, Observation and student teaching in special education: Early childhood (3)
- C\&T 5114, Cognitive curriculum in early childhood education (3), or C\&T 4052, Designing curriculum and instruction (2-3)
Special Education F ocus
(6-9 points):
Students, with the approval of their advisor, will select a meaningful combination of three special education elective courses. These may consist of either three courses within one area of focus, or three courses from diverse areas of focus.

Teachers College B readth
(4-6 points):
Two additional TC courses in Programs other than the home program. These courses should be selected carefully, with an eye toward enhancing the students program of study.
Culminating Project (0 points)
C ourse requirements for M.A. students with Education backgrounds but no previous course work in Spe dal Education indude(minimum of 32 points):
Students who are certified/have backgrounds in elementary education, including 6 credits in the teaching of reading, follow the course of study described above with the addition of C\&T 4001, Teaching students with disabilities in the regular classroom or H BSE 4002, A dapting curriculum and instruction for children with disabilities (or an approved equivalent). All students should have a minimum total of 24 points in courses in special education by the end of the program.

Course requirements for M.A. students with no background in Education indude (minimum of 36 points):
Students with no background in education follow the course of study described above with several additions. First, C\&T 4001, Teaching students with disabilities in the regular classroom, H BSE 4002, Adapting curriculum and instruction for children with disabilities, or an approved equivalent will be added to the Core requirement. Second, students must secure a placement (either a paid position or a volunteer position) in a program which serves young children with or without disabilities during their first semester enrolled (or during the semester previous to the one in which they do their student teaching). Third, students may consider selecting courses in the teaching of reading as part of their breadth requirement.

## Master of Education

Course requirements for Ed.M. students include:
30 points in Special Education and/or Early Childhood Education, 12 points in related social science courses (e.g. child development, speech and language devel opment, neurophysiology, etc.), 10-12 points in research and technology, and 6-8 points in practicum experience. 30 points may be transferred in from other programs. The exact course of study is designed by students in collaboration with their program advisors.

## Doctor of Education

Thebasic curriculum for Ed.D. students includes:
Core: C\&T 5000, Theory and inquiry in curriculum and teaching (6 points each semester, fall and spring, of the first year)
Research Requir rements: H UDM 4122, Probability and statistical inference (3 points), HUDM 5122, A pplied regression analysis (3 points), C\&T
7500, Dissertation seminar in curriculum and teaching (1-3 points), C\&T 7501 Dissertation seminar in curriculum and teaching (1-3 points), plus one additional course in research methods (2-3 points).

Other courses are selected in consultation with an advisor.

## Elementary/Childhood

Education-Preservice (Code: TYP)
Program Co-D irectors: Professors Goodwin and Schoonmaker

## D egree Offered:

M aster of Arts (M.A.)

## Special Application

 Requirements/Information: A pplicants who wish to enroll in the Summer or Fall semester should make every effort to meet the J anuary 15 priority deadline. Applications will beconsidered until April 1 on a space-avai lable basis. Those who complete their applications after the priority deadline may not have the opportunity to begin student teaching in their first year, even if admitted.

Applicants who wish to enroll in the Spring semester must submit their applications no Iater than the N ovember 1 priority deadline.

A student in this program who wants to qualify for New York State teaching certification must complete the program and file for certification prior to February 1, 2004. Teachers College is devel oping new programs to meet regulations that go into effect after February 1, 2004. These programs will be outlined in next year's catal og.

## Program D escription:

This is a 40-point M.A. preservice program for applicants with little or no teaching experience or preparation who are seeking certification at the elementary level, grades N - 6 . Extensions for Early Childhood and Middle School levels are possible. The program includes a professional student-teaching sequence from September through May.

Students may complete the program on a full-time or parttime basis; students have the option to complete an accelerated program (an academic year plus preceding and following summer sessions) or to extend their program over 2-5 years.

Students planning to student teach are required to file a DecIaration of Intention to Student Teach (available from the Department Office) by May 15 prior to the Fall term in which they plan to student teach. A non-refundable deposit of \$150.00, which is later released into the student's account upon registration for student teaching that Fall, is
al so required by May 15. Some courses may be taken before beginning the professional sequence.

N ew York State and the Preservice Program require that degree/teacher certification candidates complete a distribution of liberal arts course work at either the graduate or undergraduate levels. This includes a minimum of 6 credits in each of the following domains: English, mathematics, social science, science, and two term length courses in a language other than English (proven proficiency may substitute for course work in language). This requirement can be satisfied by:

1. transcript review of course work taken prior to entering Teachers College;
2. elective course work taken at Teachers College either as a part of or in addition to the 40 points required for the degree;
3. graduate or undergraduate course work taken elsewhere, with permission of the Registrar, while completing the Teachers College degree; these would be in addition to Preservice Program degree requirements;
4. successful completion of the College Level Examination Program (CLEP) test can be substituted for course work in a second language, or in each of the liberal arts subjects. U pon successful completion, it may fulfill the course requirement in English, social science, mathematics, and/or science.

Please note that for N ew York City licenses and for states other than $N$ ew York, requirements for certification may be different. It is up to the student to be aware of any additional provisions. Contact the Board of Education of New York City and State Education D epartments for current licensing requirements.

## D egree Requirements:

Thebasic curriculum for M.A. Ele mentary P reservicestudents indudes:

- The Preservice Core, includes such topics as teaching methods, child devel opment, teaching in urban and culturally diverse settings, curriculum development, alternative models of teaching, social studies curriculum, and classroom management and organization (designated C\&T 4123, C\&T 4334/5 and C\&T 4726 in the Fall; C\&T 4124, C\&T 4143, C\&T 4336, C\&T 4501, C\&T 4726 in the Spring). Students complete the Preservice Core concurrently with the student teaching semesters. In addition to the Preservice Core, which accounts for approximately half of the 40 points required, the following courses are required for certification and the master's degree:
- one course in Child Development (2-3 points)*, such as C\&T 4118, Theoretical foundations of childhood education
- one course in Educational Foundations (2-3 points)*, philosophical, historical, sociological etc.
- two courses in M ethods of teaching reading (3 points each): C\&T 4132 and C\&T 4133, to be taken in conjunction with student teaching.
- one course in M ethods of Teaching M ath (3 points): M STC 5010, M athematics in the elementary school
- one course in M ethods of Teaching Science (3 points): M STC 4040, Science in childhood education and M STC 4140 Laboratory methods and experiences for elementary school teachers
- one course in Special Educa tion M ethods (2-3 points)
* A ppropriate undergraduate courses may be substituted for these requirements; please consult with Preservice faculty.

Each student may use the balance of his/her 40 points as he/she decides, in consultation with an advisor, to specialize in an area of interest, to obtain additional certification, or to sample a variety of graduatelevel courses at Teachers College, Columbia U niversity, U nion Theological Seminary, or Jewish Theological Seminary.

## Gifted Education

(Code: TEI)
Program Coordinator:
Professor Borland

## D egrees Offered:

M aster of Arts (M.A.),
D octor of Education (Ed.D.), avail able through Curriculum and Teaching (Code:TYZ)

## Special Application Requirements/I nformation:

A student in this program who wants to qualify for N ew Y ork State teaching certification must complete the program and file for certification prior to February 1, 2004. Teachers College is developing new programs to meet regulations that go into effect after February 1, 2004. These programs will be outlined in next year's catalog.

Admission to programs leading to the Ed.D. degree is determined on the basis of academic ability as evidenced by success in prior academic work and /or other measures of academic aptitude; demonstrable potential for research, field inquiry, or devel opment activities in education; and three years of successful teaching or equivaIent experience. All applicants are required to submit G raduate Record Examination (GRE) or Miller Anal ogies Test scores that are no more than five years old, and are required to submit a writing sample. The Department of Curriculum and Teaching evaluates Ed.D. applica tions once per year. The application deadline is J anuary 2nd. Applications received
after J anuary 2nd will be evaluated in the following year.

## Program D escription:

The M.A. program in gifted education is designed primarily for teachers, both inservice teachers (those who al ready hold teaching certificates) and preservice teachers (individuals who have no background in the field of education but wish to become teachers). Preservice students who complete the M.A. degree in the Program in Gifted Education become certified as el ementary or secondary school teachers by applying directly to the State Education Department for Certification.

The Ed.D. degree is a concentration within the general Curriculum and Teaching Ed.D. program. Students enrolled for this degree meet the departmental doctoral core require ments, complete coursework in gifted education, and undertake dissertation research on a problem related to gifted students.

## D egre R equirements:

## M aster of Arts

Thebasic curriculum for M.A. students include:

- The nature of giftedness (6-9 points)*
Required: C\&T 4021, N ature and needs of gifted students (2-3 points) and C\&T 5023, Exceptionality and intelligence: theoretical approaches (2-3 points).
Elective: C\&T 4025, Educating the young gifted child (2-3 points)
- Teaching Gifted Students (9-12 points)* Required: C\&T 4023, Differentiated curriculum for gifted students (2-3 points), C\&T 5023, Planning and imple menting programs for gifted students (3 points). Elective C\&T 4822, Instructional models in the education of gifted students (1-2 points), C\&T 5810, N ew
approaches to identifying and educating gifted students (1-2 points), C\&T 5902, Problems in special educa tion: giftedness (1-3 points)
- Out-Of-D epartment Requirements ( $9-12$ points): Presevice students must take two 3-point courses in teaching reading ( 6 points) and one additional pedagogy course to be determined in consultation with their advisor (3 points).
I nservice students select additional courses in consultation with their advisor.
- Student Teaching (3-6 points): Presevicestudents take C\&T 4702, Observation and student teaching in special education: gifted (3 points) twice, in separate semesters. Inservicestudents take C\&T 4702, Observation and student teaching in special education: gifted (3 points) one semester.
- Culminating Project (0 points): A culminating project, arranged in consultation with your advisor, that demonstrates your ability to integrate your theoretical knowledge with practical problems and issues in gifted education.
*The number of points in the first two categories must equal 17-20.


## Doctor of Education

The basic curriculum for E d.D. students includes:
Core:

- C\&T 5000, Theory and inquiry in curriculum and Teaching (6 points each semester, fall and spring, of the first year)
Research Requirements:
- HUDM 4122, Probability and statistical inference (3 points)
- HUDM 5122, Applied regression analysis (3 points)
- C\&T 7500, Dissertation seminar in curriculum and teaching (1-3 points)
- C\&T 7501, Dissertation seminar in curriculum and teaching (1-3 points), plus one additional course in research methods (2-3 points).
- Other courses are selected in consultation with an advisor.

Curriculum and Teaching
Requirements: 9 points of course work in the D epartment of Curriculum and Teaching

G iftedness Requirements: 27 points of course work in courses in gifted education, including 9 to 12 points in C\&T 6506, Advanced Seminar: Giftedness

Elective courses: 27 points of course work determined by the student and his or her adviser.

## Learning dis/Abilities

(Code: TEN )
Program Coordinators:
Professor Reid and Ferri

## D egrees Offered:

M aster of Arts (M.A.)
Doctor of Education (Ed.D.), avail able through Curriculum and Teaching (Code: TYZ)

## Spedal Application

Requirements/Information:
A student in the M aster of Arts program who wants to qualify for N ew York State teaching certification must complete the program and file for certification prior to February 1, 2004. Teachers College is devel oping new programs to meet regulations that go into effect after February 1, 2004. These programs will be outlined in next year's catal og.

Admission to programs leading to the Ed.D. degree is determined on the basis of academic ability as evidenced by success in prior academic work and /or other measures of academic aptitude; demonstrable poten-
tial for research, field inquiry, or devel opment activities in education; and three years of successful teaching or equivaIent experience. All applicants are required to submit G raduate Record Examination (GRE) or Miller A nal ogies Test scores that are no more than five years old, and are required to submit a writing sample. The Department of Curriculum and Teaching evaluates Ed.D. applications once per year. The application deadline is January 2nd. Applications received after J anuary 2nd will be evaluated in the following year.

## Program D escription:

The M aster of A rts programs are designed to prepare teachers to work with students with academic difficulties. These multifoundational, inquirybased programs are based on the assumption that successful teachers of students with learning dis/A bilities must have a thorough understanding of the nature of learning and of learning dis/A bilities and must al so be knowledgeable about content acquisition and skilled in studying students and planning and evaluating instruction. They must be prepared to collaborate with others who work with these students in inclusive communities as well as in one-to-one or small-group settings. The inservice program requires a minimum of 33 points. Preservice students must take a minimum of 36 points. Graduates who meet the requirements of the program will be recommended for the N ew York State Certificate in Special Education. Because the programs are performance based, both preservice and inservice students must be engaged in either student or paid teaching during both fall and spring semesters.

The Ed.D. degree is a concentration within the general Curriculum and Teaching Ed.D. program. Students enrolled for this degree meet the departmental doctoral core require ments, complete course work in learning dis/abilities, and undertake dissertation research on a problem related to learning dis/abilities.

## D egree R equirements:

## M aster of Arts

Thebasic curriculum for M.A. students includes:

- C\&T 4046, Introduction to learning dis/abilities (2 points)
- C\&T 4047, Education of students with learning dis/abilities (2 points)
- C\&T 4048, Diagnosis and remediation of math learning dis/abilities (2 points)
- C\&T 4853, M ultisensory teaching of basic language skills (3 points)
- C\&T 4049, Educational accommodations and modifications for students labeled learning dis/abled (2 points)
- C\&T 4301, Practicum in educational assessment (3 points)
- C\&T 4705, Student teaching in learning dis/abilities (6 points in two semesters)
- C\&T 5905, Problems in special education: learning dis/abilities (2 points)*
- HBSK 4072, Theory and techniques of reading assessment and intervention (3 points)
- HBSK 5373, Practicum in diagnosis of reading difficulty (3 points)
- C\&T 4501, Teacher education lectures (0-2 points)*
- C\&T 4504, Child abuse \& drug abuse detection and reporting (0 points)**
* Students must enroll for, and meet the requirements of, $C \& T 4501$ in order to meed $N$ eN $Y$ ork StateCertification requi rements for work in multicultural education.
** Students must enroll for, and meet the requir rements of, C\&T 4504 in order to meet $N$ ew $Y$ ork State Certification requi rements. This course costs $\$ 10.00$ and meets for 6 hours over the course of two F riday afternoons.

In addition to the above, four to six points in elective courses in a single field of study (i.e., an option) should bechosen in consultation with an advisor. Selection is influenced by factors such as previous academic background and career objectives. Preservice students must take, in lieu of an option, courses in literacy for general educators (2-3 points), child or adolescent literature (2-3 points), and classroom management (3 points).

## Doctor of Education

The basic curriculum for Ed.D. students taking a L errning dis/A bilities concentration indudes:

- Core: C\&T 5000, Theory and inquiry in curriculum and teaching (6 points each semester, fall and spring, of the first year)
- Research Requirements: HUDM 4122, Probability and statistical inference (3 points), H UDM 5122, A pplied regression anal ysis (3 points), C\&T 5502, C\&T 7500, Dissertation seminar in curriculum and teaching (1-3 points), C\&T 7501 Dissertation seminar in curriculum and teaching (1-3 points, optional) plus one course in qual itative research methods (2-3 points) and an additional course in research methods specific to the dissertation (2-3 points).
- Other courses in foundations of Learning dis/A bilities (12-15 points) are selected in consultation with an advisor.


## Reading and Learning dis/Abilities

(Code: TZB)
Offered jointly with Department of H ealth and Behavior Studies.
Program Coordinators:
Professor Reid and Professor Perin (H ealth and Behavior Studies)

## D egree Offered:

Master of Education (Ed.M.)

## Spedial Application

## Requirements/Information:

A pplicants must hold a graduate M.A. degree in Learning dis/Abilities or Reading from either Teachers College or another accredited institution. Admission decisions are based upon undergraduate and graduate academic records (a GPA of $\mathrm{B}+$ or better is required), letters of recommendation, and a personal statement. Applicants must al so have at least three years of full-time teaching experience either at the time of admission, or before the granting of the degree.

A student in this program who wants to qual ify for N ew York State teaching certification must complete the program and file for certification prior to February 1, 2004. Teachers College is devel oping new programs to meet regulations that go into effect after February 1, 2004. These programs will be outlined in next year's catal og.

## Program D escription:

The R eading and Learning dis/A bilities Ed.M. requires a minimum of 60 points and is offered to applicants who have either teacher certification or a master's degree in a related area and desire additional, more specialized training within the reading specialist and/or learning dis/abilities areas, without making the extended commitment required to undertake pursuit of a doctoral degree. Graduates are eligible for state
certification as a reading teacher and as a teacher of special education. A pplicants who have neither a master's degree nor teaching certification in either Reading Specialist or Learning dis/A bilities should apply to the M aster of Arts program in one of these two areas. Subsequent to completing this $M$ aster of A rts degree, persons are eligible to apply for admission to the Ed.M. program in Reading and Learning dis/Abilities.

## D egree R equirements:

Courses marked with an * are required courses. Other courses necessary to fulfill each core should be selected in consultation with an advisor.
Thebasic curriculum for Ed.M. students includes:
Reading and Learning dis/A bili-
ties Core (25 points):

- C\&T 4000, dis/Ability in contexts (3 points)
- C\&T 4046, Introduction to learning dis/abilities (2-3 points)*
- C\&T 4047, Education of students with learning dis/abilities (2-3 points)*
- C\&T 4048, Diagnosis and remediation of math learning dis/abilities (2-3 points)*
- H BSK 4072, Theory and techniques of reading assessment and intervention (3 points)*
- H BSK 4074, Reading comprehension strategies and study skills (3 points)*
- HBSK 4077, Adult basic literacy (3 points)
- C\&T 4136, M ethods and materials for reading instruction (2-3)
- C\&T 4705, Student teaching in learning dis/abilities (3 points)*
- C\&T 4853, M ultisensory teaching of basic language skills (3 points)
- HUDK 5090, Psychology of language and reading (2-3 points)
- HBSK 5099, Theories of cognitive processes in writing (3 points)
- HBSK 5376, Practicum in intervention with reading and school subject difficulty (3 points)*
- HBSK 5377, Advanced practicum in intervention with reading and school subject difficulty (3 points)
- HBSK 5080, Seminar in consultation and evaluation in reading (3 points)*
- C\&T 4501, Teacher educa tion lectures (0-2 points)*
- C\&T 4504, Child abuse \& drug abuse detection and reporting (0 points)*
Testing and $M$ easurement $C$ ore
(13 points):
- C\&T 5905, Seminar in curriculum \& teaching: learning dis/abilities (2-3 points)*
- HUDM 4050, Introduction to measurement (2-3 points)*
- C\&T 4301, Practicum in educational assessment (3 points)*
- HBSK 5373, Practicum in diagnosis of reading difficulty (3 points)*
- HBSK 5374, A dvanced practicum in the psycho-educational assessment of reading difficulties (3 points)*
Learning and D evelopment C ore
(9 points):
- HUDK 4020, Theories of human development (2-3 points)
- HUDK 4022, Developmental psychology: childhood (2-3 points)
- HUDK 4023, Developmental psychology: adolescence (2-3 points)
- HUDK 4027, Development of mathematical thinking (3 points)
- HUDK 4029, Theories of human cognition and learning (2-3 points)
- H BSE 4076, Introduction to neuropsychology (3 points)
- H BSE 4079, Language development and habitation: The foundations (2-3 points)
- HUDK 4121, Developmental psychology (2-3 points)
- HBSK 5070, N eural bases for language and cognitive development (3 points)
- Electives (13 points):

The remaining points should betaken in courses that reflect the emphasis of the individual student's program. Those points may include any courses listed above, or in other areas. Electives should be selected in consultation with an advisor.

## Courses:

## C\&T 4000. dis/A bility in con-

texts (3)
Professor Reid. Enrollment limited to 35 students. For both Learning dis/A bilities majors and nonmajors. A first exploration of the historical, legal, cultural, and social experiences and representations of people across the full range of disabilities. The course focuses on life contexts, including education, family (caregiver), employment, and independent living as well as life-span transitions. It draws on a wide range of interdisciplinary scholarship and ways of knowing. Special fee: $\$ 25$.

## C\&T 4001. Teaching students

with dis/abilities in inclusive classrooms (3)
Professor Ferri. Enrollment limited to 35 students. For both Learning dis/A bilities majors and nonmajors. This course is designed to foster collaborative, problem-solving relationships among general and special education teachers in designing and modeling inclusive pedagogies and practices for diverse learners. It also overviews the classroom uses of assistive instructional technologies and other accommodations. Special fee: \$25.

C\&T 4002. Basic course in theory of curriculum design (3)
Professor Lesko or Schoonmaker. The nature and design of educa tional activities: theory, research, and practice of curriculum design.

## C\&T 4004. Basic course in

school improvement (3)
Professor K night. Major themes include state of the field regarding school change, schools as social
organizations, the individual in the organization, theories of change, and implementation strategies and processes.

C\&T 4005. Principles of teaching and learning (3)
Professor Whitford. Examination of the relationships among teaching, learning, and assessment; teaching as a profession; and schools as complex social organizations.

C\&T 4020. The environments of school (2-3)
Faculty. Space, objects, and territoriality; school and classroom size; the environment as hidden curriculum; risk and stress in school; interreationship of the cognitive, social and physical conditions and outcomes of schools and classrooms.

C\&T 4021. N ature and needs of gifted students (2-3)
Dr. Wright. Psychological factors personal and social affecting identification and development of gifted children and youth: implications for education, counseling and guidance.

C\&T 4022. Instructional models in the education of gifted students (2-3)
Professor Borland. A review and application of special instructional systems for educating the gifted. Special attention devoted to frameworks developed by G ordon, Parnes, Renzulli, Taba, Tannenbaum, Taylor and W illiams. Course al so offered as summer workshop C\&T 4822.

C\&T 4023. D ifferentiated curriculum for potentially gifted students (2-3)
Dr. Wright. This course examines the characteristics of appropriate and defensible curriculum for potentially gifted children and youth. Particular emphasis is placed on instructional strategies, curriculum theories, flexible grouping techniques, and meeting the needs of gifted learning in the regular classroom.

## C\&T 4025. Educating young

potentially gifted children (2-3)
Dr. Wright. Examination of theories and practices relevant to the education of the young (preschool through second grade) potentially gifted child with particular focus
on talent development, differentiated curriculum, nontraditional identification techniques, at risk children, and parent education.

## C\&T 4029. Creativity: its nature

 and nurture (2-3)Faculty. An examination and critical appraisal of theories of creativity, test development to measure creativity, and methods designed to enhance the creativity of children and adults.

## C\&T 4046. Introduction to

learning dis/abilities (2-3)
Professor Ferri. Enrollment by permission only. This course is designed to examine the psychological and social characteristics of children and adolescents described as learning disabled.

## C\&T 4047. Education of stu-

 dents with learning dis/abilities (2-3)Professor Reid. Procedures for teaching students with learning disabilities. Discussion and demonstration of selected methods applicable in resource room programs, regular and special classes, and individual remedial instructional settings.

C\&T 4048. Diagnosis and remediation of math learning problems (2-3)
Faculty. Techniques for identifying and remediating problems affecting math mastery in children labeled learning disabled. Review of relevant research. Evaluation of materials, methods, tests, and remedial techniques in resource room programs, regular and special classes, and individual remedial instruction.

C\&T 4049. Educational accommodations and modifications for students labeled learning dis/abled (2)
Professor Reid. Educational assessment and intervention for students labeled learning disabled in included settings. Special fee: $\$ 25.00$.

C\&T 4051. Supervision for elementary and secondary schools (2-3)
Professor Schoonmaker. Theory and practice of supervision in elementary and secondary schools. Emphasis is on the role of the
supervisor in improvement of instruction and curriculum development. Students practice techniques for improving supervisory skills through role playing, case studies, and anal ysis of teaching. Attention given to creating programs for continuous professional growth of elementary and secondary school teachers, paraprofessionals, and leadership personnel.

## C\&T 4052. D esigning curriculum and instruction (2-3)

Professor Lesko or Oyler or faculty. A pplication of models for designing curriculum and instruction. Students design curriculum in collaborative groups.

## C\&T 4078. Curriculum and

 teaching in urban areas (2-3) Professor K night. A nal ysis of social context and resources for curriculum and teaching in urban areas.C\&T 4080. N ormal and atypical development of young children (2-3)
Professor Recchia. A first course in early childhood special education for majors and non-majors. Development of infants, toddlers, and preschoolers with and without disabilities. Cross-categorical.

C\&T 4081. Programs for young children with disabilities (2-3) Professor Recchia or Dr. Bernard. Curriculum development and instructional strategies for exceptional young children birth to age 5 , in home and center-based programs. Organization and planning of activities and intervention models; anal ysis and selection of materials; community resources. Crosscategorical and transdisciplinary.

C\&T 4082. A ssessment of young children with exceptionalities (2-3)
Professor Recchia. An introduction to formal and informal assessment strategies and their application to work with young children.

## C\&T 4083. Working with fami-

 lies of young children with disabilities (2-3)Professor Recchia or faculty. Current and historical perspectives on parent involvement in the special education and rehabilitation of infants, children, and youth with disabilities. Emphasis on strategies
and materials to facilitate a continuum of parent and family participation. Special fee: $\$ 10$.

## C\&T 4113. Early childhood

methods and programs (3) Professor Genishi or Williams or Dr. Fennimore. Comparative study of traditional, current, and innovative program models designed for children from birth through 8 years of age.

## C\&T 4114. Multicultural

 approaches to teaching young children (3)Professor W illiams. A nal ysis of major curriculum models for learning in young children through use of culturally and environmentallyderived content.

## C\&T 4117. Play: the roots of competence in young children (3) <br> Faculty. The origins of play and related aspects of development with implications for practice.

## C\&T 4118. Theoretical founda-

 tions of childhood education (2-3)Professor Genishi. M ajor theories rel evant to contemporary research and practice in early childhood and childhood education: learning theory, Piaget's interactionism, Vygotsky's sociocultural developmental theory, and Bruner's theory of pragmatics and context in devel opment.

C\&T 4119. Issues and interdisciplinary methods for working with parents of young children (2-3)
Dr. H offman. Issues such as separation, problematic behaviors, and assessment are examined in the development of interdisciplinary strategies for working with parents of normal, at risk, and handicapped young children. Sessions are taught by an interdisciplinary team of faculty and invited speakers from special education, clinical psychology, early childhood education, psychiatry, pediatrics, and social work.

## C\&T 4121. Early childhood teaching strategies within a social context (2-3)

Professor Genishi or W illiams or faculty. Exploration of the teaching strategies used in early child-
hood education through analysis of the social contexts out of which they have arisen. Emphasis on assimilation and application of differing strategies through workshop format.

C\&T 4122. Issues in parenthood and education (2-3)
Dr. H offman. Examination of rele vant theory and research on parent devel opment. Topics include transition to parenthood, pregnancy, parenting children of different ages, at-risk parents, parenting the special needs child, and single parenthood. M ethods of working with different parent populations are addressed.

## C\&T 4124. Curriculum develop-

 ment in elementary education (2-3)Professors G oodwin, Oyler, Schoonmaker and Staff. Permission required. Open to student teachers, interns, assistant and beginning teachers who are concurrently working in elementary or middle schools. Continuation of C\&T 4123, with emphasis on teaching of social studies, the interrelationship of various instructional fields, and team curriculum development.

C\&T 4130. Current issues in elementary education (2-3)
Professor Zumwalt or faculty. Required for all Elementary Education in-service majors and open to non-majors. A critical study of curriculum and instructional practices in A merican elementary schools. Curriculum trends in subject areas such as reading, social studies; trends and intended/unintended consequences of practices in areas such as management and discipline; teacher expectancy and accountability. Special attention will be paid to the role of educational leadership.

C\&T 4132. Learning and teaching in the primary reading/ writing classroom (3)
Professor Calkins, K iefer, or Siegel. Permission required. Examines principles of literacy learning in young children and introduces the ories, practices, and materials for teaching reading/writing in primary grades.

C\&T 4133. Learning and teaching in the intermediate reading/writing classroom (3)
Professors Calkins, K iefer, or Siegel. Permission required. Examines strategies for teaching, orga nizing and assessing reading and writing in intermediate grades.

C\&T 4136. Methods and materials for reading instruction (2-3) Professor K iefer or Professor Siegel. A survey of approaches to reading instruction from kindergarten through middle school with a critical examination of modern methods, materials, trends, and issues.

## C\&T 4138z. Literacy instruction

 in the early and middle years (6) Professor Calkins. An over view of methods of teaching reading and writing including guided and shared reading, miscue analysis, literature circles, conferring in reading and writing, genre studies, etc.
## C\&T 4140. Literature for

 younger children (2-3)Professor K iefer. Critical study of literary trends and materials for children in prekindergarten, kindergarten, and early grades. Consideration of developmental issues and reader response theory relating to young children.

## C\&T 4141. Literature for older

 children (2-3)Professor K iefer. Interpretive and critical study of literature suitable for later elementary grades and junior high school. Consideration of promising practices in using literature in school groups.

## C\&T 4143. Social studies in the

 elementary and middle school (2)Professors Goodwin, O yler, Schoonmaker and Staff. Permission required. Developing a curriculum in social studies: emphasis on ratio-nal-empirical and emergent models; critical examination of current practices. M aterial fee: $\$ 20$.

C\&T 4145. The education of youth and adolescents (2-3) Professor $K$ night. A comprehensive examination of adolescent development and learning as they relate to issues of curriculum, teaching, and learning.

C\&T 4151. Teaching of writing (3)

Professor Calkins. The course integrates theory and practice for teachers. Topics include writing development, research on writing, models for responding to and evaluating student writing, and classroom methods for teaching the writing process in elementary classrooms.

## C\&T 4159. Teacher education

 programs (2-3)Faculty. Current devel opments in programs for the preparation and inservice devel opment of teachers for elementary and secondary schools.

C\&T 4160. Supervision in preservice teacher education programs (2-3)
Faculty. Theory and practice of supervision of student teachers. Designed especially for cooperating teachers, this course will help students develop supervisory skills through case studies, role playing, and anal ysis of teaching. Lab fee: \$5.

C\&T 4161. The teacher: professional/social/personal context of teaching (2-3)
Professor Zumwalt or faculty. Exploration of dilemmas facing teachers today through analysis of historical studies, recent reports, and autobiographical reflections. Consideration of teacher development theories and recent proposals regarding teachers. Prerequisite: teaching experience.

C\&T 4200. Fieldwork in curriculum and teaching (1-4) Faculty. Permission required. M ajors work under guidance. Students should have had previous course work with their supervising staff member and should select a problem relating to this work

## C\&T 4301. Supervised

 practicum in the educational assessment of exceptional children (2-3)Faculty. Permission required. Pre requisite: C\&T 4004. Participation in educational assessment of exceptional children. A nalysis of observational and test data; formulation of educational programs for exceptional learners. Conducted in the Center for Educational and PsychoIogical Services or in appropriate
community facilities. Course meets one full day a week. Lab fee: $\$ 150$.

## C\&T 4302. Supervised

 practicum in the educational assessment of young children with exceptionalities (2-3)Professor Recchia and Faculty. Permission required. Prerequisite: C\&T 4082. Participation in educational assessment of young children with exceptional ities. A nalysis of observational and test data; formulation of educational interventions. Conducted in the Center for Infants and Parents and the Center for Toddlers and Parents. Course meets one full day a week. Lab fee: \$150.

## C\&T 4308. Pre-student teaching

 practicum in early childhood special education (3)Professor Recchia or Dr. Bernard. This course is a practicum for students in the Early Childhood Special Education Program that serves as a prerequisite for student teaching. Students will work on and off campus to develop competencies in such skills as C.P.R ., program planning, and working effectively with children and families. Special fee: \$50.

## C\&T 4334-C\&T 4337. Models of

 teaching: practicumProfessors G oodwin, Oyler, Schoonmaker, and Staff. Permission required. Class meets for six sessions. Consult instructors for exact dates during the term each class will meet. A laboratory course for developing teaching skills and strategies based on contemporary models (group process, cooperative learning, synectics, role play, concept development). Application of the models to field problems in teaching, staffing, supervision, and curriculum design. Video tape recorded peer teaching and analysis.

C\&T 4334. Group process strategies (1)
C\&T 4335. Cooperative learning (1)
C\&T 4336. Synectics and role playing (1)
C\&T 4337. Concept attainment and formation (1)

C\&T 4501. Teaching and learning in the multicultural classroom (0-2)
Dr. Langer de Ramirez. Open to preservice and inservice students in all subject departments. Class meets for seven sessions (consult department secretary or instructor for dates). Student diversity (characterized by gender, race, ethnicity, language, special needs, and sexual orientation) is examined in relation to decisions about teaching methodology, curriculum, instructional materials, student grouping, home-school-community relationships, and teachers' professional growth and development.

C\&T 4502. Master's project (1)
Professor Genishi, Goodwin, Lesko, K iefer, or Siegel. Permission required. Required for TYZ M aster's students. Students work to devel op proposal s to initiate required M aster's action research project.

## C\&T 4503. I ndependent study

 (1-3)Faculty. Permission required. M ajors work individually or in small groups with a staff member. Students should have had previous course work with their supervising staff member and should select a problem relating to this work.

## C\&T 4504. Child abuse \& sub-

 stance abuse detection and reporting (0-2)Dr. J acullo-N oto. Specialized training in the Detection and Reporting of Child A buse and the Detection of Drug and Alcohol Abuse required for teacher certification by the State of New York.

C\&T 4615. Young children and social policy: issues and problems (2-3)
Dr. Fennimore. Overview of social policy towards young children as it affects classroom practice and professional goals. Situations such as child abuse, divorce and custody, student classification, and foster care are examined.

## C\&T 4702. Student teaching-

 giftedness (3)Dr. W right. Observation and student teaching. Permission Required. Course requires 3-5 days a week for participation in community, school, and agency
programs and a weekly seminar on campus.

## C\&T 4705. Student teaching-

 learning dis/abilities (3)Faculty. Observation and student teaching. Permission Required. Course requires 3-5 days a week for participation in community, school, and agency programs and a weekly seminar on campus.

## C\&T 4708. Student teachinginfancy and early childhood (3)

 Professor Recchia and Faculty. Observation and student teaching. Permission required. Course requires 3-5 days a week for participation in community, school, and agency programs and a weekly seminar on campus.
## C\&T 4726Z. Professional labo-

 ratory experiences (including full-time student teaching) in elementary education (4-6) Professors Schoonmaker, Goodwin, Oyler, and Staff. Permission required. Students must begin in the A utumn term. Full-time student teaching under the sponsorship of the regular classroom teacher with supervision shared by the cooperating teacher and Teachers College staff members. A ssignments to classrooms provide for emphasis on education for younger and older children in traditional and innovative settings, including the College's Professional Development School. Given in conjunction with C\&T 4123 and C\&T 4124. Eighteen hours per week field placement plus class hours. Students registering to begin student teaching must file a Declaration of Intention to Student Teach by M ay 15 prior to the Fall term.
## C\&T 4729. Professional labora-

 tory experiences (including student teaching) in elementary education (4)Professor Goodwin. Permission required. Prerequisites C\&T 4123 or C\&T 4124 and C\&T 4726. Designed for students who have completed two semesters of student teaching as an additional Iaboratory experience. (See C\&T $4726 z$ description). Students registering to begin student teaching must file a Declaration of Intention to Student Teach by May 15 prior to the Fall term

C\&T 4731. Professional laboratory experiences (including student teaching) in elementary education (4)
Professor Goodwin. Permission required. Given in conjunction with C\&T 4123 or C\&T 4124. Laboratory experience designed for certified teachers. (See C\&T 4726z description). Students registering to begin student teaching must file a Declaration of Intention to Student Teach by May 15 prior to the Fall term.

C\&T 4900. Research and independent study: Curriculum and teaching (1-8)
Faculty. M aster's degree students undertake research and independent study under the direction of a faculty member.

C\&T 4900. Section 010. Seminar in curriculum \& teaching: Learning dis/abilities (2-3) Professor Reid. Prerequisite C\&T 4049. Exploration of the following roles teachers of students label ed as learning disabled play in today's schools: teacher-as-schol ar-practitioner, teacher-as-researcher, and teacher-as-change-agent.

## C\&T 5000. Theory and inquiry

 in curriculum and teaching (6 points each semester, fall and spring).Faculty. Required of and limited to first-year Ed.D. students in the Department of Curriculum and Teaching; must be taken in both the fall and spring semesters. Introduction to and exploration of important problems and issues in curriculum and teaching, methods of formulating questions, and modes of inquiry appropriate to doctoral-level research.

## C\&T 5023. Exceptionality and intelligence: theoretical approaches (2-3)

Professor Borland. Theories of cognition as they relate to the issues of intelligence and creativity presented as a basis for conceiving of students as exceptional and for differentiating their curriculum.

C\&T 5024. Planning and implementing programs for gifted students (3)
Professor Borland. Examination of factors affecting planning and implementation of programs for
the gifted, components of gifted programs, and systems approach to program planning. Students develop written program plans for specific settings.

C\&T 5036. Child and family policy (2-3)
Professor Brooks-Gunn. Course provides a foundation of knowledge concerning the role of child and family perspectives in informing public policy.

C\&T 5037. Literacy, culture and the teaching of reading (3)
Professor Siegel. Prerequisite: C\&T 4136, C\&T 4138, or equivalent. Examines current practices of reading instruction in light of theory and research on literacy as a social, cultural and political practice.

## C\&T 5042. Special topics in

 children's literature (3)Professor K iefer. Study of specific genres or curriculum issues in children's literature. Topics are announced in preliminary and final course schedules distributed each semester. Registration not limited to one term.

## C\&T 5053. Staff development

 processes and procedures (3) Faculty. Concepts and practices related to staff development, inservice education, and organizational improvement. Attention given to applications of staff development using institutional cooperation, organizational dynamics, and research on teacher training. Designed for principals, supervisors, curriculum directors, and others concerned with staff and program development to deal with change in their own institutional contexts.
## C\&T 5074. Curriculum and teaching policy (3)

Professor Sobol. Prerequisite: C\&T 4004. Examination of the theoretical and political bases of curriculum and teaching policies and their influences on school organizations and teaching practices. Explores the policy-making process from policy design through implementation.

C\&T 5112. Issues in child care and education: infancy through school age (2-3)
Dr. Farber. An examination of such issues as inclusion, equity, effects of welfare reform, training needs, and the role of transdisciplinary supports within the context of recent demographic, social, political, and economic changes in our society. Public and private sector responses to newly emerging issues, the dilemmas posed, and recommended solutions. Eval uations of the adequacy of the responses to the demand for child care, and the nature, characteristic, and quality of the supply. Invited speakers present perspectives from education, health and mental health, government, business, the community, advocacy, and communication.

## C\&T 5113. Influence of social

 factors in childhood education: developmental strategies (2-3) Professor Genishi. Application of devel opmental, sociocultural, ethological, and socialization theory and research to the understanding of children's social lives in the classroom and other settings.C\&T 5114. Cognitive curriculum in early childhood education (3)
Professor Williams or Dr. H offman. Focus on the practical application of cognitive theory and research in the design of curricula for children from birth to 8 years of age. Emphasis on development of a sample curriculum.

C\&T 5118. Infant and toddler development and practice (2-4) Professor Recchia or Dr. de G root Kim. Permission required. Theory is rel ated to practice and research with infants, toddlers and families. Students participate in classroom practice and meet for weekly seminar on-site at the Rita Gold Early Childhood Center. Enrollment is for 1 or 2 semesters.

## C\&T 5302. Advanced

 practicum-giftedness (1-6) Professor Borland and Dr. Wright. Permission required. Guided experiences for advanced students in Giftedness. Supervised group field visits. Preservice internships arranged. Students submit reports analyzing experiences.
## C\&T 5305. Advanced

 practicum-learning dis/abilities (1-6)Faculty. Permission required. Guided experiences for advanced students in Learning Disabilities. Supervised group field visits. Preservice internships arranged. Students submit reports analyzing experiences.

## C\&T 5308. Advanced

 practicum-infancy and early childhood (1-6) Professor Recchia. Permission required. Guided experiences for advanced students in Early Childhood Special Education. Preservice internships arranged. Students submit reports analyzing experiences.
## C\&T 5321. Practicum in early

 childhood education: curriculum development, observation, and assessment in early childhood (3-4)Professor Genishi or Williams. Permission required. Supervised in-service competency-based field experiences in early childhood settings. Emphasis on emerging issues and refinement of practice.

## C\&T 5323. Supervision and the

 organization of programs for families with young children (3) Faculty. Prerequisites: C\&T 5118 A ssessment procedures, supervision, and social policy are related to the development and administration of programs for families with infants and toddlers.C\&T 5500. Development of the curriculum field (2-3)
Professor Schoonmaker. Permission required. Critical anal ysis of current and historical developments in the theory and practice of curriculum making.

C\&T 5501. Research methods in curriculum and teaching
Professors B orland or Siegel. Understanding and developing competence in research methods for studying curriculum and teaching.

## C\&T 5502. Introduction to

 qualitative research in curriculum and teaching (2-3) Professors Genishi, Siegel, or W hitford. Introductory seminar on methods in qualitative research, with focus on case studies in classrooms and schools.C\&T 5513-C\&T 5514. Seminar in early childhood education (3) Professor Genishi, Recchia, or W illiams. Required of all secondyear doctoral students in early childhood education and open to other post-M aster's students with permission. Examination of underlying issues and currents in early childhood education, with formulation of initial research plans.

## C\&T 5515. Infancy research

 seminar (1-6)Professor Recchia. Permission required. Research in infant development is facilitated and coordinated through training in a variety of research methods and a seminar.

C\&T 5902. Independent studygiftedness (1-4)
Professor Borland. Permission required. Qual ified students work under guidance on practical research problems. Proposed work must be outlined prior to registra tion; final written report required.

C\&T 5905. Problems in special education: learning dis/abilities (1-4)
Professor Reid. Permission
required. Qualified students work under guidance on practical research problems. Proposed work must be outlined prior to registra tion; final written report required.

## C\&T 5908. Independent study-

 infancy and early childhood (1-4)Professor Recchia. Permission required. Qual ified students work under guidance on practical research problems. Proposed work must be outlined prior to registra tion; final written report required.

## C\&T 5913. Independent study

of infants and parents (3)
Professor Recchia. Permission required. W orkshop approach to the study and support of infants and their parents.

C\&T 6200-C\&T 6201. Field study in designing curriculum and instruction (2-8)
Faculty. Permission required. Field experiences in relation to designing, conducting, and evaluating programs in curriculum and instruction.

C\&T 6259-C\&T 6260. Fieldwork in preservice teacher education (1-4)

C\&T 6400. Internship program in curriculum research (2-4) Faculty. Permission required. For doctoral candidates. Firsthand experience in a center where curriculum research is in progress.

## C\&T 6405. Advanced intern-

 ship-learning dis/abilities (1-6) Professor Reid. Permission required. Post-master's level. Intensive in-service internship designed to meet individual student's needs. Students submit reports analyzing experiences.
## C\&T 6408. Advanced intern-

 ship-infancy and early childhood (1-6)Professor Recchia. Permission required. Post-master's level. Intensive inservice internship at agency chosen to meet individual student's needs. Students submit reports analyzing experiences.

C\&T 6452-C\&T 6453. Internship program in supervision and curriculum improvement Professors Schoonmaker, G oodwin, Oyler, and Staff. Permission required. Prerequisite: C\&T 4160 or C\&T 4051. W ork with curriculum leaders in an ongoing program. Fieldwork involves school system problems and leadership processes.
C\&T 6452. In-service (2-4)
C\&T 6453. Pre-service (2-4)
C\&T 6501-C\&T 6502. Studies in curriculum and teaching (2-3)
Faculty. Permission required. Inte grating seminar provides an opportunity for students to discuss issues and questions fundamental to the field of curriculum and teaching.

## C\&T 6503-C\&T 6504. Seminar

 in field research (2)Faculty. Permission required. Corequisite: C\&T 6200-C\&T 6201. Collect and organize data and report field study findings. Abstract general izations or limited theories as guides to practice and further research.

C\&T 6505. Spencer Seminar: school research and development (2)
Professor Goodwin. This seminar is designed to prepare doctoral students to conduct collaborative school-based inquiry focused on educational practice in el ementary, middle, and high schools. Special attention is given to issues of school-university collaboration, context-sensitive research methodologies, urban educational improvement, and the relation of research to development in school settings. Participation in field research and development is required.

## C\&T 6506. Advanced seminar-

 giftedness (3)Professor Borland. For doctoral students in Giftedness. Recent devel opments in theory and research in gifted education.

C\&T 6507. Advanced seminarlearning dis/abilities (3-12) Professor Reid and Ferri. For doctoral students in learning disabilities and related fiedds. Recent developments in theory and research as related to learning di sabilities from psychol ogical, educational, sociological, and other sources.

C\&T 6508. Advanced seminarinfancy and early childhood (3) Professor Recchia. For doctoral students in special education and related fields. Recent developments in theory and research as related to the special ization from psychol ogical, educational, sociological, and/or medical sources

## C\&T 6532. Seminar in

 reading/language arts and related research (3)Professor Siegel. Permission required. Open only to advanced M aster's and doctoral students with a special ization in reading or related area who have completed a recent methods course in reading. In-depth study and discussion of trends and issues in reading development and instruction.

C\&T 6533. Advanced study of children's literature (3)
Professor K iefer. Permission required. Issues and problems relating to the formulation of knowledge about children's literature.

C\&T 6551. Seminar in supervision and curriculum improvement (3)
Professor Schoonmaker. Permission required. Prerequisite: C\&T 4051, C\&T 4005, or equival ent. Primarily for doctoral students. Intensive study of selected problems. M ajor emphasis on formulation of supervision strategies and curriculum change

## C\&T 6569. Seminar in theory

 and research in curriculum (1-3) Faculty. Permission required. Critical study of classroom environment as a laboratory for teacher education.
## C\&T 6900-C\&T 6901. Directed

 research and theory development in curriculum and teaching (1-4)Faculty. Permission required
C\&T 6914-C\&T 6915. Advanced studies in early childhood and childhood education (1-4)
Professors Genishi, K agan, Recchia, or W illiams. Permission required. Identification and theoretical and empirical investigation of selected topics, problems, and issues in early childhood and childhood education. Topics vary. M ay be taken more than once for credit.

## C\&T 7500-C\&T 7501. Disserta-

 tion seminar in curriculum and teaching (1-3)Professors Genishi or Zumwalt. Two semesters required of all doctoral candidates in the department. Development of doctoral dissertations and presentation of plans for approval.

## C\&T 8900. Dissertation advise-

 ment in curriculum and teaching (0)Individual advisement on doctoral dissertations. Fee: to equal 3 points at current tuition rate for each term. For requirements, see section in catal og on Continuous Registration for Ed.D. degree.

## Continuing Education

C\&T 4802. Models of curriculum and teaching (non-credit or 1) Professor Goodwin, Genishi, or Williams. An institute focusing on current issues in curriculum and teaching, such as innovative mod-
els of teaching or curriculum development in specific settings. Topics vary and institute may be taken more than once for credit.

## C\&T 4803. Facing history

 (1 to 2)Mr. N el son. A workshop designed for educators who want to think about innovative approaches to citizenship education. Participants will have the opportunity to investigate the consequences of racism, anti-Semitism, and violence in society and ways to teach responsibly abut these issues in the classroom. Case study of the events that led to the H olocaust will be used to explore the significance of decisions by individuals and groups in history and the connections to the choices adolescents face today.

C\&T 4822. Instructional models in the education of gifted students (non-credit, 1 or 2) Professor Borland. W hat should gifted students learn? H ow can we differentiate the curriculum for gifted learners in order to meet their special needs more effectively? These and other questions will be addressed in this three-day workshop devoted to the discussion, anal ysis, and evaluation of instructional models designed or adapted for gifted students. Emphasis will be placed on the principles of curricular differentiation and on providing an overview of a range of models designed to modify content, enhance the development of thinking skills and enhance creativity.

## C\&T 4835. Improving reading

 instruction (non-credit or 1-3) Professor K iefer or Siegel. An institute focusing on current issues in reading and related areas. Includes oral and written language development and children's literature.C\&T 4853. Multisensory teaching of basic language skills for students with learning disabilities (non-credit or 3-4)
M s. R owe. Introduction to the theoretical and practical issues of teaching a M ultisensory Instructional Language approach in reading, spelling, and handwriting, and in the structure of English, based on Alphabetic Phonics to dysl exic students. Four-week summer session. M aterials fee: $\$ 30$.

C\&T 4854. Multisensory teaching of basic skills I (non-credit or 1)
M s. R owe. Prerequisite: C\&T
4853. Two day-long workshops combined with the teaching of Alphabetic Phonics curriculum in school settings. Extension of practice in Schedule II, teaching reading, spelling, and handwriting.

C\&T 4855. Multisensory teaching of basic skills II (non-credit or 1)
Ms. Rowe. Prerequisite: C\&T 4854. Two day-long workshops combined with the teaching of Alphabetic Phonics curriculum in school settings. Extension of C\&T 4854.

C\&T 4858. Institute: teaching of reading (3)
Professor Cal kins. Designed to help teachers of grades K-8 develop a theoretical framework for the teaching of reading and a repertoire of strategies of enhancing students' independence and skills as readers.

C\&T 5800. Institute: teaching of writing (non-credit or 1, 3, or 6) Professor Calkins. The focus of the Institute will be on the teaching of writing with the participants al so working on their own writing. There will be a combination of large group presentations, small interactive sessions, and writing workshops. Separate sections will be offered for advanced participants. A partial list of topics to be covered includes: the central role of planning and curriculum development in the teaching of writing, methods for holding out students accountable for doing their best work, classroom structures that support inquiry and collaboration, and using literature to help students craft their writing. The Institute is appropriate for elementary and secondary school teachers.

## C\&T 5810. New approaches to

 identifying and educating gifted students (non-credit, 1 or 2) Professor Borland and Dr. Wright. This threeday workshop provides participants with the opportunity to learn about and discuss new challenges and approaches to identifying and educating gifted students. Presentations and discussions will provide the core for eachDepartment of
Curriculum and Teaching
day. Small group work and individual consultations will also be integrated throughout the three days. The emphasis of these sessions will be on the creation of practical products and practices that can be used in the participant's schools. Schools are al so encouraged to send both individuals and teams with clearly articulated issues and problems they would like to have discussed.

C\&T 5853. Advanced multisensory teaching of basic language skills for students with learning disabilities (non-credit or 2) Ms. Rowe. Prerequisites: C\&T 4853, C\&T 4854, and C\&T 4855. In-depth extension of multisensory techniques for teaching reading strategies, spelling situations and formulas, advanced syllable division, lesson planning, dictionary skills, composition, and comprehension. Two-week summer session.

C\&T 5854. Advanced multisensory teaching of basic skills I (non-credit or 1)
Two day-long workshops to extend and refine skills in advanced phases of curriculum while teaching in school settings.

C\&T 5855. Advanced multisensory teaching of basic skills II
(non-credit or 2)
A continuation of C\&T 5854. Four day-long workshops.

Chair: Professor Charles E.
Basch
Location: 531A Thorndike Hall
Tel ephone N umber:
(212) 678-3964

Applied Educational
Psychology:
(212) 678-3942

H ealth Education:
(212) 678-3964

N ursing Education:
(212) 678-3120

Nutrition:
(212) 678-3950

Physical Education:
(212) 678-3154

Special Education:
(212) 678-3880

Email: ceb35@columbia.edu
Fax: (212) 678-8259
W eb Address:
http://www.tc.columbia.edu/~ academic/health

## Programs:

Applied Educational Psychology:
N eurosciences and Education
Reading Specialist
Reading and Learning
Disabilities*
School Psychology
Health Studies:
H ealth Education
N ursing Education
Nutrition
Nutrition Education
N utrition and Public H ealth
Applied Physiology and Nutrition**
Community N utrition Education
Dietetic Internship Program
Physical Education

## Special Education:

Administration of Special Education
Behavioral Disorders
Blindness and Visual Impairment
Cross-Categorical Studies
Deaf and H ard of H earing
Guidance and H abilitation
Instructional Practice
Mental Retardation and Intellectual Disability
Physical Disabilities

Research in Special Education
Supervision of Special Education

## Teaching of American Sign <br> Language as a Foreign Language

*Offered jointly with the
Department of Curriculum and Teaching
** Offered jointly with the
Department of Biobehavioral
Studies

## Faculty:

## Professors:

John P. Allegrante (H ealth Education)
W illiam G. A nderson (Physical Education)-Emeritus
Charles E. Basch (H ealth Education)
Ann E. Boehm (School Psychology)-Emeritus
Isobel R. Contento (N utrition)
R. Douglas Greer (Special Education)
J oan D. Gussow (N utrition) Emeritus
Linda Hickson (Special Education)
Lawrence H. K ushi (N utrition)
Dennis E. M ithaug (Special Education)
K athleen A. O'Connell (N ursing Education)
Stephen J. Silverman (Physical Education)

## Adjunct Professors:

Terry T. Fulmer (N ursing Education)
Barbara K rainovich-M iller (N ursing Education)
Clarence E. Pearson - H onorary (H eal th Education)

## Associate Professors:

M arla R. Brassard (School Psychology)
Ursula K irk (School Psychology)-Emeritus
Robert E. K retschmer (Special Education and ASL as a Foreign Language)
D olores Perin (R eading Special ist)
Stephen T. Peverly (School Psychology)

Barbara C. W al lace (H ealth Education)

## Adjunct Associate Professors:

Caroline Camuñas (N ursing Education)
Robert E. Fullilove, III (H eal th Education)
Mindi Fullilove (H ealth Education)
R oseanne C. Gotterbarn (School Psychology)
Toni Liquori (N utrition)
MarieT. O'Toole (N ursing Education)
$M$ argaret G. E. Peterson (H ealth Education)
John T. Pinto (N utrition)
Lora A. Sporny (N utrition)
Patricia A. Zybert (H ealth Education)

Visiting Associate Professors:
C. Ronald MacK enzie-H onorary (H ealth Education)
Connie N. Vance (N ursing Education)

## Assistant Professor

Susan Garni M asullo (Reading Specialist)

## Adjunct Assistant Professors:

Sheila A mato (Special Education)
Sharon R. Akabas (N utrition)
Lynne M. Bejoian (Special Education)
J anice Berchin-W eiss (Special Education)
Bonnie Bernstein (N utrition)
Giannina Convertino (Special Education)
Gay Culverhouse (Special Education)
Craig Demmer (H ealth Education)
Diane Dillon (School Psychology)
K aren Reznik Dolins (N utrition)
David Erlanger (N eurosciences and Education)
Thomas M. K elly (Special Education)

Ishita K hemka (Special Education)
Pamela A. K och (N utrition)
M ichael K oski (School Psychology)
Susan Lipkowitz (Special Education)
Eugene McM ahon (Special Education)
Sheila O'Shea M elli (N ursing Education)
Laura M enikoff (R eading Specialist)
Stephen M orgenstern (Special Education)
Christine E. Pawelski (Special Education)
Russell Rosen (Special
Education and ASL as a
Foreign Language)
Barbara Sandberg (School Psychology)
Sandra Sherman (N utrition)
M errill Simpson (N utrition)
Virginia S. Stolarski (Special Education)
Trina Urv (Special Education)
Shannon W halen (H ealth Education)

## Visiting Assistant Professor:

Elizabeth A. W alker-H onorary (N ursing Education)

## Research Assistant Professor:

Randi W olf (N utrition)

## Instructors:

K athy Boisvert (Special Education)
Christina Costa (N utrition)
K athryn H amilton (N utrition)
Leah Greenberg (Special Education)
J ane Bogart (H ealth Education)
N ektaria Glinou (Special Education)
M ary Anne Gray (Reading Specialist)
LeslieGreen (H ealth Education)
M aria H artman (Special Education)
Leonor M aro (N utrition)
Shelley M esznik (N utrition)
H oward M eyer (Physical Education)
Elizabeth Paul (H ealth Education)

K atherine R oberts (H ealth Education)
Mary Ellen Rooney (Special Education)
$N$ adine R othman (Special Education)
Patricia R othschild (Special Education)
Michelle Saunders (Special Education)
Ruth Zealand (Special Education)

For information about faculty and their scholarly and research interests, please refer to the "Faculty" section of the Catal og.

## Departmental mission:

Programs in this Department share the common goal of helping people to real ize their full potential as learners, to make informed decisions, and to attain the best possiblequality of life. H ealth and learning are inextricably linked. Optimal learning cannot take place in an atmosphere permeated with physical, psychological, and social health problems, and optimal health cannot be achieved without skill in learning and literacy.

One way to enhance learning potential is by overcoming heal th-rel ated constraints and barriers to literacy through work at both the individual and community levels. Some programs prepare professionals to work with individual s and draw on and contribute to the behavioral sciences and education. Others emphasize the development and assessment of innovative, multidisciplinary, commu-nity-based interventions.

The programs in the Department fall into the following categories:

## Applied Educational Psychology

The fields of study included in this program are: N eurosciences and Education, Reading Spe cialist, R eading and Learning Disabilities, and School Psy-
chology. Such study prepares students to serve as educators, scientists, and service providers in a variety of settings, including universities, schools, psychoeducational clinics, hospitalbased child study clinics, and community agencies.

## Health Studies

The heal th studies program includes: H eal th Education, N ursing Education, N utrition (Applied Physiology and Nutrition, Community N utrition Education, Dietetic Internship, N utrition and Public H eal th, Nutrition Education), and Physical Education. These programs prepare students to serve in leadership roles in commu-nity-based organizations, government agencies, corporations, health care settings, and schools. Current knowledgein behavioral science and education is integrated with field-based applications for health promotion and disease prevention.

## Special Education

A mong the programs included in Special Education are: Administration and Supervision of Special Education Programs, A pplied Behavior A nal ysis and Behavioral Disorders, Blindness and Visual Impairment, Deaf and H ard of Hearing, Guidance and H abilitation, Instructional Practice, M ental Retardation and Intellectual Disability, Physical Disabilities, Research and Supervision of Special Education programs.

These programs prepare students to serve as leaders and scholar-practitioners skilled in the development, evaluation and application of practices that improve the life prospects of people with disabilities.

## The Teaching of American

 Sign Language (ASL) as a Foreign LanguageTeaching A merican Sign Language (ASL) as a Foreign Language prepares students to
serve as schol ar-practitioners who are skilled, knowledgeable and practiced in the development, eval uation and implementation of pedagogy that will instruct and educate individuals unfamiliar with A SL, the deaf community, and the culture of individual s who are deaf or hard of hearing.

Typically, the population that these scholar-practitioners will eventually instruct and educate are individuals who themselves have hearing, are in regular education programs, and possess a wide range of cognitive, social, and academic abilities and cultural backgrounds.

The Department faculty offers a broad spectrum of expertise. We encourage multidisciplinary efforts within the faculty and hope that, in the course of their studies, students will acquire the val uable skill of working collaboratively with experts in other disciplines.

## Applied Educational

Psychology
N eurosciences and Education
Reading Specialist
Reading and Learning
Disabilities
School Psychology

## Neurosciences

and Education
(Code: TKN)
Program Coordinator: Professor U rsula K irk

## D egree Offered:

M aster of Education (Ed.M.)

## Special Application Requirements/Information:

 A pplications are considered for the fall term only. An interview is recommended.This program may not admit students for the fall 2002 term. Please check with the Office of Admission before submitting an application.

Students who enter the program with a master's degree may apply up to 30 points of acceptable graduate credit toward the Ed.M. Enrollment may be on a full- or part-time basis. Students may enter the program with only a bachelor's degree but must combine study of the neurosciences with earning an M.A. in an applied area such as Learning Disabilities or Reading Specialist. The M.A. provides a sequence of supervised practica and opportunities to acquire professional skills and experience.

## Program D escription:

This is the first and only graduate program focused on the educational and clinical implications of recent advances in understanding brain-behavior relationships. The objective of the program is to prepare a new kind of specialist: a professional with dual preparation able to "bridge the gap" between research underlying cognition and behavior and the problems encountered in schools and clinics.

The program leads to an advanced master's degree and is intended primarily for qualified professionals with experience in such fields as school psychology, occupational therapy, physical therapy, learning disabilities, and reading. For most graduates, the degree is designed to supplement their professional training; however, some go on to further graduate study.

## D egree Requirements:

The program of study in neurosciences and education offers a systematic sequence of courses within the neurosciences.

- B asic courses provide a thorough introduction to the neural bases of behavior.
- A dvanced courses explore implications of brain-behavior research for educational and clinical practice.
- Supervised practica enable students to make use of neuropsychological assessment findings for instruction and learning.


## Professional Studies

All students are expected to devel op or enhance their competencies in and understanding of: a) the psychol ogical processes underlying development and learning, b) the nature of psychoeducational assessment, c) the social and philosophical foundations of education, and d) the theory and practice within a particular field of education or clinical specialization. Thus, all students must offer the minimum preparation and point distribution outlined below within the four areas. Prior study at the graduate level may be applied to meet these requirements if judged to be acceptable.

Students who are not qual ified through prior study at the undergraduate or graduate level to meet the requirements for registration, certification or licensure in an area of educational or clinical practice must select one of the following three areas for professional specialization within this program:
a) Educational PsychologyReading,
b) Elementary Education,
c) Special Education, or
d) M otor Learning.

In effect, students fulfill the master's level requirements in one of these four areas, and thus qualify for the M.A. degree during the 60-point program of study for the Ed.M.

For other students who are professionally qualified before entry to this program, there may be requirements in addition to those outlined below.

Psychological processes underlying development, learning and cognition
One course in each of the areas below is required.

D evel opmental P sychol ogy:

- H BSK 5024, Early language development (2-3)
- H BSK 4024, Developmental psychology: A dulthood and life-span (2-3)
- HBSK 5219, Adulthood (3)
- HBSK 5023, Cognitive devel opment (2-3)
- H BSK 4020, Theories of human development (3)

Learning and Cognition:

- HBSK 5023, Cognitive development (if not applied toward Developmental requirements)
- H BSK 5097, Psychology of instruction (3)
- A\&H G 4011, Cognition
- A\&H G 4002, Learning


## Psychological Evaluation and Assessment

The two courses (or their equivalents) indicated below are required.

- HUDM 4050, Introduction to measurement (2-3)
- HBSK 5320, Individual psychological testing (3)


## Educational or Clinical Specialization

M inimally, 15 points of graduate study representing a cohesive sequence of courses in such areas as: audiology, counseling psychology, educational psychology, elementary education, motor learning, nursing, science education, speech pathology and special education.

## Neurobiological Bases of Behavior and Educational Applications

## C ore C ourses

The courses indicated below are for students with little or no prior background in N eurosciences. W ith consultation and approval of the advisor,
three to four courses are
required unless equival ent preparation can be demonstrated.

- HBSK 5070, N eural bases of language, and cognitive development, Section 1 (3) Section 2 (3)
- BBS 4043, The human nervous system (3)
- BBS 5069, Brain and behavior I: Communication in the nervous system (2)
- BBS 5069, Brain and behavior II: Perception, emotion, memory and cognition (1-2)
- BBSQ 4040, Speech and language disorders (3)
- HBSK 5072, D evelopmental N europsychology (3)


## Educational and Clinical Applications of the Neurosdiences

All students are expected to offer minimally 24 points of study in N euroscience and Education course work. At least three courses (9 points) must be selected for the Core Courses. The Integrative Seminar (minimum of 3 points) is required during work on the Ed.M. paper. The four additional courses (12 points) necessary to fulfill the point requirement may be selected for the remaining Advanced Course, Field W ork/Case Studies, W orkshops/Conferences, or Advanced Topical Seminars.

A dvanced Courses
M inimally, three courses from those listed below or (equivalents):

- HBSK 5338. N europsychology assessment in education and clinical practice (3)
- HBSK 5033. Human clinical neuropsychology (3)
- HBSK 5139. Fundamentals of psychopharmacology (3)
- HBSK 5371. Educational neuropsychology (3)

Integrative Seminar
The Seminar HBSK 5575 is required of all students and is taken in conjunction with
preparation of the Ed.M. project. It may betaken for two semesters (fall and spring of one academic year), beginning with the second year of the student's full-time equival ent enrollment in the program ( 15 points). A total of at least 3 points must be accrued in this year.

The Ed.M. project entails a committee of one advisor in the N euroscience program and at least one other appropriate faculty member. It culminates in a paper of publishable form and quality which is submitted for permanent record at the Teachers College Library, and in an oral presentation of the work to the students and faculty of the N euroscience and Education program.

Fidd Work/Case Studies

- HBSK 5274, Field W ork: N europsychological A pproaches to reading and learning disabilities (0-4)
- HBSK 5375, Case studies of reading and learning dDisabilities from a neuropsychological perspective (3)

A dvanced Topical Seminars

- HBSK 6575, Seminar in neuroscience and education (3)
- BBSQ 6510, Seminar: N europathol ogies of speech (3)
- HBSR 6561, Seminar in neuromotor processes (2-3)

Summary of Point Distribution (Ed.M.)
Professional studies (27-32 points)

- Psychological processes (6)
- Psychological eval uation and assessment (6)
- Educational or clinical special ization (15-18)

N eurobiological bases or behavior and educational applications 18-30 points

- Core courses in neurosciences (9-12)
- Educational and clinical applications of the neurosciences (18)
- Integrative seminar in neurosciences and education (H BSK 5575) (3 or more)

Electives (3-12 points) Minimum Total (60 points)

Opportunities for student participation in research are available. Preparation of a master's thesis is required for the degree.

N ote Teachers Col lege students enrolled in selected doctoral programs may arrange a focus in the area of $N$ eurosciences and Education. These includeClinical Psychol ogy, C ounsd ing P sychol ogy, D evd opmental Psychology, Educational P sychology, M otor Learning, Science Education, Special Education, and Speech Sciences.

The Program in N eurosciences and Education offers Postdoctoral Advanced Study programs in both N eurosciences and Education and Clinical N europsychology. Contact Professor Ursula K irk for more information.

## Neurosciences

and Education
(Code: TZL)

## Clinical

Neuropsychology (Code: TZK)

## D egree Offered:

Certificate of Attendance

## Spedial Application

Requirements/Information: Applicants must be qualified professionals who hold the doctoral degree. A pplicants for clinical neuropsychology have to be licensed or eligible for licensure.

These programs may not admit students for the fall 2002 term. Please check with the Office of Admission before submitting an application.

## Courses:

Neurosciences and Education BBS 5069. B rain and behavior I, II (3)
Professor Gentile. General introduction to higher brain functions with particular emphasis on cortical processes. A nal ysis and discussion of behavior in selected topical areas: attention, cognition, consciousness, perception and Ianguage; consequences of damage on learning and memory.

## HBSK 5033. Human clinical neuropsychology (3)

Professor K irk. Permission required. Prerequisite: HBSK 4075 or equival ent. Cognitive and emotional di sorders associated with particular brain functions or locations.

HBSK 5070. Neural bases for language and cognitive development Section 1 (3) Section 2 (3) Professor K irk. Permission required. Examination of neural mechanisms involved in language, reading, and the acquisition of academic skills. Particular attention to language disorders, variations in cerebral organization, and hemisphere specialization.

## HBSK 5072. Developmental

 neuropsychology (3)Faculty. Permission required. Prerequisite: HBSK 4075 or HBSK 5070 or H BSK 5068 or equivalent background in basic neurosciences; al so recommended: an introductory course in developmental psychology. Focus on neurobiological processes underlying pre- and post-natal development of the central nervous system. Particular attention is devoted to processes rel ated to early perceptual-motor and cognitive development and to educational and clinical problems in development.

## HBSK 5139. Fundamentals of

 psychopharmacology (3)Faculty. Permission required. Mechanisms of action and behavioral effects of drugs on the central nervous system. Focus on drugs influencing learning and memory and those used for psychiatric and neurobiological conditions.

HBSK 5274. Fieldwork: Neuropsychological approaches to reading and cognitive development (1-3)
Professor Kirk. Permission required. Corequisite: H BSK 5375. Supervised experience in neuropsychol ogical assessment and intervention. Special fee: $\$ 100$.

HBSK 6383. Neuropsychological assessment of children and adults (3)
Professor Kirk. Permission required. Prerequisites: H BSK
5033 or HBSK 5070; and HBSK 5320. A nal ysis, administration, and interpretation of special procedures used to assess brain damage/dysfunction in adults and children. Special fee: $\$ 150$.

H BSK 5371. Educational neuropsychology (1-3)
Professor Kirk. Permission required. Educational applications of neuropsychological assessment findings. Special fee: $\$ 150$.

H BSK 5375. Case studies of reading and cognitive development from a neuropsychological perspective (4)
Professor Kirk. Permission required. Prerequisite: previous courses in neuropsychological and educational assessment. Interpretation and implications of neuropsychol ogical assessment for effective educational interventions. Materials fee: $\$ 100$.

H BSK 5575. Integrative seminar in neurosciences and education (3)

Professor Kirk. Primarily for students in the N eurosciences and Education program during prepa ration of the final Ed.M. project; others by permission. In-depth examination of the implications for education and clinical practice of defined areas within the neurosciences.

## Advanced Study

H BSK 9410. Supervised internship, advanced study level (1-6) Professor K irk. Internship for Advanced Study program students in Clinical $N$ europsychology or in N eurosciences and Education.
Supervised experience with assessment and intervention techniques
in the neurosciences as they apply to education and clinical practice.

H BSK 9910. Independent study, advanced study level (2-3)
Independent study vehicle for students in Advanced Study program to engage in supervised research or independent readings in neurosciences and education or clinical neuropsychology.

## Additional Courses Relevant to Neurosciences and Education

(F or course descriptions, see other program listings)

- M STC 5052-M STC 5053. B iochemistry and cell biology (3-4)
- M STC 5055. Electron microscopy (3)
- M STC 5152. Biochemistry and cell biology laboratory (2)
- CCPJ 4064. Principles and methods of psychological counseling (3)
- H BSJ 4160. Guidance of children and youth (2-3)
- HBSK 4073. Psychoeducational assessment and intervention (1-3)
- HUDK 5023. Cognitive development (3)
- HUDK 5024. Language development (2-3)
- HBSK 5031. Family as context for child development (3)
- HBSK 5096. The psychology of memory (3)
- HBSK 5320-H BSK 5321. Individual psychological testing (2-3)
- BBSQ 4043. The human nervous system (3)
- BBSQ 6513-BBSQ 6517. Seminars in basic and applied speech science (3)
- BBSR 4055. N euromotor processes (3)
- BBSR 6562-BBSR 6565. Seminar in neuromotor processes (2-3)
- CCPX 4030. Psychology of adjustment (3)


## Independent Study and Research

Students may register for intensive individual study of a topic of special interest. Registration in independent study is by permission of the instructor under whose guidance the work will be undertaken. Credit may range from 1 to 3 points each term.

The following courses may be taken by students in the Ed.M. Program in N eurosciences and Education. The last digit of each course number corresponds to the area of study: Psychology; N eurosciences and Education; H BSK 4904; HBSK 6904.

Doctoral students in other programs at the coll lege may register for the foll owing course:

- HBSK 4904. Research and independent study (1-3 each course)
- HBSK 6904. Advanced research and independent study (1-3 each course)
- HBSK 7504. Dissertation seminar (1-3 each course) Permission required. Development of doctoral dissertations and presentation of plans for approval. Registration limited to two terms.
- HBSK 8900. Dissertation advisement (0 each course) Individual advisement on doctoral dissertation. Fee equal to 3 points at current tuition rate for each term. See catal og on continuous registration for Ed.D./Ph.D. degrees.


## Reading Specialist <br> (Code: TKU)

Program Coordinator: Professor Dolores Perin
(For program information, call 212-678-3942 or email dp111@columbia.edu.)

## D egree Offered:

M aster of Arts (M.A.)

## Special Application

 Requirements/I nformation:Successful completion of the program leads to eligibility for N ew York State certification as a Reading Teacher (those who do not have a N ew York State teaching license are required to take the standardized tests mandated by New York State before applying for certifica tion). A student in this program who wants to qualify for N ew York State teaching certification must complete the program and file for certification prior to February 1, 2004. Teachers Coll ege is developing new programs to meet regula tions that go into effect after February 1, 2004. These programs will be outlined in next year's catal og.

## Program D escription:

The Reading Special ist M.A. program provides students with a broad foundation in applied educational psychology as it relates to literacy acquisition, and concentrated preparation in the assessment and remediation of reading and writing difficulties. The program provides experience in working with child, adolescent, and adult learners.

Graduates of the program:

- Understand the normal acquisition of literacy skills.
- Understand the cognitive processing problems experienced by students with reading, writing, and other learning disabilities.
- Understand literacy processes in terms of linguistic, ethnic, and cultural diversity.
- Understand the affective components of literacy difficulty.
- Can identify cognitive processing problems that underlie reading decoding, reading comprehension, and writing difficulties.
- Are abl e to assess reading, writing, and related skills.
- Can formulate and deliver an appropriate intervention plan.
- Can evaluate the effectiveness of remedial interventions and revise techniques and strate gies when necessary.
- Can eval uate commercially prepared instructional and testing materials analytically and critically.
- Are able to interact with families to promote reading and writing habits in children.
- Are able to work collabora tive with other professionals and institutions.

Prepared to serve children and adults with a wide variety of educational needs, the program's graduates are in great demand as reading specialists in schools, community agencies, psychoeducational clinics, and private practice.

## D egree Requirements:

The M aster of Arts consists of approximately 34 points, and can be pursued either part-time (two academic years and two summers) or full-time (one academic year and two summers). A completion of a M aster's Integrative Project is required for graduation.

Required Courses (10 required courses, total 28-30 points):

- HUDM 4050, Introduction to measurement (2-3)
- HBSK 4072, Theory and techniques of assessment and intervention in reading (3)
- HBSK 5373, Practicum in literacy assessment \& intervention I (HBSK 4072 pre requisite or corequisite, permission required) (3)
- HBSK 5376, Practicum in literacy assessment \& intervention II (HBSK 4072 and HBSK 5373 prerequisite or corequisite, permission required) (3)
- HBSK 5377, Practicum in literacy assessment \& intervention III (HBSK 5376 pre requisite) (3)
- HBSK 5098, Diagnosis of reading and writing disabilities (3)
- HBSK 4074, Reading comprehension strategies and study skills (3)
- HUDK 5090, Psychology of I anguage and reading (2-3)
- HBSK 4085, Behavioral management in the classroom (child focus) (3) or
- HBSK 4077, Adult basic literacy (adult focus) (3)
- H BSK 5580, Seminar in consultation and evaluation in reading (to be taken during the final Spring of the program) (3)

With advisor's approval, one of the following may be substituted for H BSK 5580:

- HBSK 5272. Supervised field placement in reading (permission required) (1-3)
- HBSK 4903. Research-Inde pendent study, reading (permission required) (3)
- HBSK 6576. Acquisition of reading and writing ability (permission required) (3)

Elective Courses ( 2 or 3 courses, total 6 points): See Program A dvisory Statement and Frequently A sked Questions, availablefrom Program Secteary.

## Coursegrades

If courses are graded, students should take them for a grade, rather than pass/fail.

Completion of M.A. Project The M aster's integrative project can address a number of areas related to reading and related learning difficulties among children and adults. This culminating project is intended to
be completed during the final term of a student's enrollment in the program under the supervision of an advisor.

## Courses:

See courses in Reading Specialist, Reading and Learning Disabilities, and School Psychology programs below.

## Reading and Learning

Disabilities
(Code: TZB)
Program Coordinators: Professor K im Reid and Professor Dolores Perin

## D egree Offered:

M aster of Education (Ed.M.)

## Spedal Application

 Requirements/Information:A pplicants must hold a graduate M.A. degree in Learning Disabilities or Reading Specialist from either Teachers College or another accredited institution. Admission decisions are based upon undergraduate and graduate academic records (a GPA of B+or better is required), letters of recommendation, and a personal statement. Applicants must al so have at least three years of full-time teaching experience either at the time of admission, or before the granting of the degree.

A student in this program who wants to qual ify for New York State teaching certification must complete the program and file for certification prior to February 1, 2004. Teachers College is devel oping new programs to meet regulations that go into effect after February 1, 2004. These programs will be outlined in next year's catal og.

## Program D escription:

The Reading and Learning Disabilities Ed.M. requires a minimum of 60 points, and is offered to applicants who have either teacher certification or a
master's degree in a related area and who desire additional specialized training, without making the extended commitment required to undertake a doctoral degree. Graduates are eligible for state certification as a reading teacher and as a teacher of special education.

Applicants who have neither a master's degree nor teaching certification in either R eading Specialist or Learning Disabilities should apply to the M aster of Arts degree in one of these two areas. Subsequent to completing this M aster of Arts degree, persons are eligible to apply for admission to the Ed.M. program in Reading and Learning Disabilities.

## D egree Requirements:

A total of at least 25 points must be taken to fulfill the reading and learning disabilities core requirement. Courses marked with an * are required courses. Other courses necessary to fulfill this core should be selected in consultation with an advi sor. An integrative paper, which is submitted to fulfill the master's special project requirement, is prepared during the semester in which H BSK 5580 is taken (usually the last spring semester of attendance).

Reading and Learning
D isabilities C ore

- C\&T 4000, Introduction to special education (2-3)
- C\&T 4050*, Introduction to learning disabilities (2-3)
- C\&T 4051*, Education of students with learning disabilities (2-3)
- C\&T 4052*, Diagnosis and remediation of math learning problems (2-3)
- HBSK 4072*, Theory and techniques of assessment and intervention in reading (3)
- HBSK 4074, Reading comprehension strategies and study skills (3)
- HBSK 4077, A dult basic literacy (3)
- C\&T 4136, M ethods and materials for reading instruction (2-3)
- C\&T 4138, Teaching reading: a whole language perspective (2-3)
-C\&T 4705*, Observation and student teaching: learning disabilities (3)
- C\&T 4853, M ultisensory teaching of basic language skills(3)
- HUDK 5090, Psychology of language and reading (2-3)
- HBSK 5099, Theories of cognitive processes in writing (3)
- HBSK 5373, Practicum in literacy assessment and intervention I
- HBSK 5376*, Practicum in literacy assessment \& intervention II (3)
- HBSK 5377, Practicum in literacy assessment \& intervention III (3)
- HBSK 5580*, Seminar in consultation and evaluation in reading (3)
- C\&T 4501*, Core course: teacher education lecture (0-2)
- C\&T 4504*, Child abuse and drug abuse detection and reporting (0)

Lemrning and Development C ore
A total of at least 9 are needed to fulfill this core requirement.

- HUDK 4020, Theories of human development (2-3)
- HUDK 4022, Developmental psychology: childhood (2-3)
- HUDK 4023, Developmental psychology: adolescence (2-3)
- HUDK 4027, Development of mathematical thinking (3)
- HUDK 4029, Theories of human cognition and learning (2-3)
- HBSK 4076, Introduction to neuropsychology (3)
- C\&T 4079, Language development and habitation: the foundations (2-3)
- HUDK 4121, Developmental psychopathology (2-3)
- HBSK 5070. N eural bases for language and cognitive development (3)

Testing and $M$ easurement $C$ ore A total of at least 13 are needed to fulfill this core requirement.

- C\&T 4004*, Tests and remedial work for children with learning disabilities (2-3)
- HUD M 4050*, Introduction to measurement (2-3)
- C\&T 4301*, Practicum in the educational assessment of exceptional children (3)


## Courses:

See courses in Reading Specialist, Reading and Learning Disabilities, and School Psychology programs listed below.

## School Psychology

(Code: TK L-Ed.M.)
(Code: TKT-Ed.D.)
Program Coordinator: Professor Stephen Peverly

## D egrees Offered:

M aster of Education (Ed.M.)
D octor of Education (Ed.D.)

## Spedial Application

 Instructions/Information:The GRE general test and an academic writing sample (a paper for a prior undergraduate or graduate class) are required for applicants to both the Ed.M. and Ed.D. degrees.

Any student wishing to focus on Low Incidence/H andicaps/ H earing Impaired or N europsychology should indicate this on the application form under "A rea of Special ization."

## Program D escription:

Our program involves the application of cognitive and developmental psychology to the promotion of competence in learning and mental health in schools and other educational contexts. Course work provides students with a strong foundation in the theory and research of cognitive and developmental psychology and its application to (a) the instruction and learning of school related subjects, particularly reading, and (b) the understanding and treatment of mental heal th problems. Practica and internship experiences provide students with the opportunity to apply this knowledge directly to their work with clients.

Clients are seen in a variety of contexts, including our collaborating schools (we provide school psychological services to children and youth in 3 schools that serve children from racially, ethnically, and linguistically diverse low and middle income envi ronments). Faculty research, all of which is cognitively and/or developmentally oriented, provides yet another vehicle for students (doctoral primarily) to develop and apply their knowledge.

The overall goal of the program is to educate school psychologists who can promote the cognitive, behavioral, and social growth and development of children and families from diverse linguistic, cultural or racial backgrounds, through the ability to:

- Assess and diagnose learning, behavior, and emotional problems and strengths, from early childhood through middle adulthood, with an emphasis on school-age children and youth.
- Generate recommendations that are devel opmentally appropriate, remediate deficits effectively, and promote competence.
- Supervise other professionals-in-training in psycho-educational assessment and educational interventions with clients;
- Implement and eval uate the oretically and empirically sound educational and mental heal th intervention programs for school personnel, families and children. Examples include cognitive-behavioral individual and group interventions for coping with anxiety-related problems and for developing study skills, social skills, and early reading skills;
- Implement and evaluate behavioral consultation with school personnel and parents about children's instruction and learning, mental health and behavior. Examples include consultation about maximizing the learning and appropriate behavior of children with attention, learning, conduct and social skill deficits.
- In addition, doctoral graduates will be able to conduct psychological research related to children's cognitive and social-emotional functioning and take leadership roles in a broad range of settings such as schools, universities, psychoeducational clinics, and community agencies.


## D egree Requirements:

## Master of Education

The M aster of Education program requires approximately 66 points of course work. The course of study stresses a firm grounding in the core areas of psychology, especially cognitive psychology, as well as in the tool s traditionally used by school psychologists to apply their knowledge and skills to school settings. Completion of the Ed.M . program in School Psychology can lead to certification as a school psychologist in $N$ ew York State.

Ed.M. students should plan on three years of full-time attendance, including summers. Although part-time attendance is possible, full-time attendance leads to a richer educational experience. Ed.M. students must be avai lable to spend a minimum of one full day per week for practica in their first year and two full days per week for fieldwork in their second year. Internships are full-time.

Suggested Sequence of Courses by Y ear and Semester:

First Year:
F all

- H BSK 4025, Professional and ethical issues in school psychology
- HBSK 4072, Theory and techniques of reading assessment and intervention (Section 1)
- HBSK 5320, Individual psychological testing
- HBSK 5373, Practicum in psychoeducational assessment of reading (Section 1)
- HBSK 5031, Family as a context for child development

Spring

- HBSK 4073, Psychoeducationnal assessment and interventions
- HUDK 5023, Cognitive development
- HBSK 5321, Individual psychological testing
- HBSK 6380, Practicum in psychoeducational assessment with culturally diverse students

Summer

- HUDM 4122, Probability and statistical inference
- CCPX 4137, Group dynamics: Theory and experience

Second Year:
Fall

- HBSK 5070, N eural bases for language and cognitive development (Section 1)
- HBSK 5085*, Observing and assessing preschool children or
- HBSK 4074, Development of reading comprehension strategies and study skills
- HBSK 5280, Fieldwork
- HBSK 6382, Advanced practicum in psychoeducational interventions in schools
- HUDF 4029, Sociology of schools (H U DF 4021 and 4027 are acceptable al ternatives.)


## Spring

- HBSK 6383, N europsychological assessment of children and adults
- HBSK 5096, The psychology of memory
- HBSK 5280, Fieldwork
- CCPJ 6362, Group practicum (Section 2)
- H BSS 6100, M easurement and program eval uation

Third Year:

- HBSK 6480, School psychology internship (full-time placement)
*Take H BSK 5085 if you are interested in working with young children; take H BSK 4074 if you are interested in late elementary/middle school and high school populations.


## Doctor of Education

The doctoral program (Ed.D.) requires 95+ points. Attainment of the doctoral degree prepares students for certification as a school psychologist and licensure as a psychologist. On average, doctoral students should plan on five years of full-time attendance, including summers-three years of course work, a two-semester externship in the third year, a fullyear internship during the fifth year, and a dissertation.

Suggested Sequence of Courses by
Y ear and Semester
First Year:
Fall

- HBSK 4025, Professional and ethical functions of school psychologists
- HBSK 5320, Individual psychological testing
- HUDM 4122, Probability and statistical inference
- HBSK 4072, Theory and techniques of reading assessment and intervention
- HBSK 5373, Practicum in literacy assessment \& intervention I
- HBSK 6570-HBSK 6578, R esearch practicum

Spring

- HBSK 5321, Individual psychological testing
- HBSK 4073, Psychoeducational assessment and intervention
- HUDK 5023, Cognitive devel opment
- HBSK 6380, Practicum in psychoeducational assessment with culturally diverse students
- HBSK 6570-HBSK 6578, R esearch practicum


## Summer

- HUDM 5059, Psychological measurement
- HUDM 5122, Applied regression


## Second Y ear:

Fall

- HBSK 5085, Observing and assessing preschool children
- HBSK 5070, N eural bases for language and cognitive development (Section 1)
- HBSK 5280, Fieldwork
- HBSK 6382, Advanced practicum in psychoeducational interventions in schools
- CCPX 4137, Group dynamics: Theory and experience
- HBSK 6570-HBSK 6578, Research practicum

Spring

- HBSK 6383, N europsychological assessment of children and adults
- HUDM 5123, Experimental design
- HBSK 5280, Fieldwork
- CCPJ 6362, Group practicum (Section 2)
- HBSK 6570-HBSK 6578, Research practicum

Summer

- CCPX 6020, History and systems of psychology

Third Year:
Fall

- HUDF 4029, Sociology of schools (H U DF 4021 and 4027 are acceptable alternatives.)
- HBSK 4074, Development of reading comprehension strategies and study skills
- H BSK 5031, Family as a context for child development
- HBSK 5271, Supervised externship in psychoeducational practice (Section 1)
- HBSK 6570-HBSK 6578, Research practicum

Spring

- H BSK 5096, Psychology of memory
- HBSK 5271, Supervised externship in psychoeducational practice (Section 1)
- ORLJ 5040, Research methods in social psychology
- HBSK 5273, Supervised experience in supervision
- HBSK 6570-HBSK 6578, Research practicum

Fourth Year:

- HBSK 8900, Dissertation advisement
- HUDM 6122, Multivariate anal ysis I/elective (in consultation with advisor)

Fifth Year:

- HBSK 6480, School psychologist internship


## Foci in School Psychology

As mentioned previously, master's and doctoral students in the School Psychology Program can choose, if they wish, to focus on one of two areas: hearing impaired or neuroscience and education. Each of these options is detailed below.

Deaf and $H$ ard of $H$ earing The focus in Low Incidence Disabilities: Deaf and H ard of H earing requires a core of 9 courses (20 credits) plus appropriately planned fieldwork and internship experiences. One of these courses will meet the program's special education requirement. Students are expected to become proficient in communicating by sign at an intermediate level before the completion of the program.

Therequired courses are:

- BBSQ 4042, Audiology
- H BSE 4079, Language development and habituation: the foundation
- HBSE 6070, The psychology of deafness
- HBSE 4072, Development of language for individuals who are deaf or hard of hearing
- HBSE 5907, Linguistics of ASL
- HBSE 4071, Language, reading and writing instruction in the content areas for individuals who are deaf or hard of hearing
- H BSE 4070, Psychosocial and cultural aspects of deafness
- HBSE 4871, American Sign Languagel
- HBSE 4872, A merican Sign Languagell

There are many opportunities for fieldwork and internship experiences in the N ew York City area including public and private schools (e.g., St. M ary's School for the D eaf; St. J oseph's School for the Deaf; and St. Francis School) and hospitals (e.g., M anhattan Eye and Ear H ospital).
$N$ aurosciences and Education The focus in N eurosciences and Education requires a minimum of 5 courses or 15 points. Of these courses, four are required. One required course focuses on children and meets the APA General Psychology Requirements for biological bases. A nother course focuses on the consequences of brain damage in adults.

These two courses provide students with an understanding of the differences between the developing brain and the adult brain, as well as the differences involved in the consequences of brain damage for the acquisition of skill and for the loss of an acquired skill.

A third course focuses on neuropsychological assessment for children and adults. The fourth course is completed by working two days in an external placement. The fifth course, as well as additional course work, can be selected as an elective, with the advice of an advisor.

Required Courses:

- BBS 5069, Brain and behavior I, II (3)
- HBSK 5070, N eural bases of language and cognitive development Section 1, 2
This course focuses on children and meets the general psychology requirements for biological bases.
- HBSK 5033, Human clinical neuropsychology
This course focuses on the consequence of brain damage in adults.
- HBSK 6383, N europsychological assessment of children and adults
- HBSK 5274, Fieldwork: N europsychological approaches to reading and cognitive development

Students work one day in the field and the equival ent of one day at Teachers College. The Teachers College experience involves working as a member
of a diagnostic/intervention team with children and adults with known or suspected neurological basis for their learning problems.

Regular staffing sessions and occasional case conferences al low students to develop and implement a neuropsychological perspective as well as to become familiar with perspectives on behavior which differ from their own. Joint intake sessions and reporting sessions allow students to acquire facility in interpreting the results of neuropsychol ogical testing to clients and parents.

## Courses:

HBSK 4025. Professional and ethical functions of school psychologists (3)
Professor Peverly. Permission required. Overview of issues associated with the school psychologist's roles within educational settings including assessment, intervention, and consultation functions. Education law and ethics are stressed.

HBSK 4072. Theory and techniques of reading assessment and intervention (3)
Professor Perin and others. Overview of theories, assessment, and intervention techniques for reading and writing. Both normal development and literacy difficulty are addressed. M aterial s fee: $\$ 50$.

HBSK 4073. Psychoeducational assessment and interventions (1-3)
Dr. Dillon. Psychoeducational assessment, diagnosis, and treatment of child and adolescent disorders. M aterials fee: \$50.

HBSK 4074. Development of reading comprehension strategies and study skills (3) Professor Peverly. Reading and study skills: Practical procedures based on research findings appropriate for teachers, counsel ors, and others. Discussion focuses on students in the middle elementary grades through young adulthood. $M$ aterial s fee: $\$ 25$.

H BSK 4077. Adult basic literacy (3)

Professor Perin. Psychological and educational aspects of adult basic literacy for teachers, counsel ors, and others who work with adults who seek to improve their basic reading and writing skills.

## HBSK 4085. Behavioral man-

 agement in the classroom (3) Dr. Sandburg. Behavioral analysis and management techniques applied to the classroom. Observation and recording of behaviors, behavior change, reinforcement schedules, shaping token economies, contingency management, and evaluation of behavior modification. Focus on applications but includes familiarization with research.HBSK 4770. Observation and student teaching: elementary education (1-5)
Permission required. Student teaching under supervision, with emphasis on reading instruction.

HBSK 4903. Research-independent study in reading (1-3)
Faculty. Permission required. Individualized research and fieldwork projects in literacy assessment and intervention.

H BSK 5031. Family as a context for child development (3)
Professor Brassard. Prerequisite: any introductory developmental psychology course. Examines theories of family functioning and empirical evidence of family processes that mediate child devel opment outcomes. Emphasis on family factors associated with children's cognitive development and academic functioning. M aterials fee: $\$ 50$.

## H BSK 5070. Neural bases for

 language and cognitive development Section 1, 2 (3)See Program in $N$ eurosciences and Education for course description.

HBSK 5085. Observing and assessing preschool children (3) Professor Boehm. Overview of assessment procedures used with preschool and kindergarten-age children including review of related tests, the devel opment of observation procedures, and the development of screening programs. M aterials fee: $\$ 75$.

HBSK 5096. The psychology of memory (3)
Professor Peverly. An anal ysis of perspectives on human memory with particular attention to knowledge, attention, strategic processes, metacognition, transfer, and context. The application of this information to practice is stressed.

H BSK 5098. Diagnosis of reading and writing disabilities (3) Professor Perin. Co-requisites HBSK 4072 and HUDM 4050. Presents theories and practices of diagnosing dyslexia, and other disorders of literacy. Students learn to administer, score and interpret a test battery, and formulate a diagnosis. M aterials fee: $\$ 50$. Permission required.

## H BSK 5099. Theories of cognitive processes in writing (3)

 Professor Perin. An examination of theoretical underpinnings of writing processes from vantage points of educational and cognitive psychology. Topics include the acquisition of writing abilities across the life-span, reading-writing relationships, and methods of assessing writing samples. Prerequisite: at least one course in reading, writing or spoken language.
## HBSK 5271-HBSK 5273. Super-

 vised fieldwork in remedial reading and school difficulties Permission required.- HBSK 5271. Dr. Dillon.

Supervised externship in psychoeducational practice (1-3) Supervisory fee: \$100.

- HBSK 5272. Professor Perin.

Supervised field placement in reading (1-3)

- HBSK 5273. Professor Brassard. Supervised experience in supervision (1-3)

HBSK 5280. Fieldwork in school psychological services (1-3)
Dr. Gotterbarn. Permission required. Limited to second-year students in School Psychology. Consists of two days per week of field placement for two semesters, plus university-based supervision. M ust be taken concurrently with HBSK 6382-HBSK 6383. Supervised experience of psychoeducational practice. Supervisory fee: $\$ 100$ per semester.

HBSK 5320-HBSK 5321. Individual psychological testing (3) Professors K irk and Brassard. Permission Required. Prerequisite or corequisite: H UDM 4050 or equivalent. This is a year-long course open to doctoral students in Counseling and Clinical Psychology and to Ed.M. and doctoral students in School Psychology. Background, administration, and interpretation of major psychological tests from both nomothetic and ideographic perspectives. Part I covers the administration of major measures. Part II covers the interpretation and integration of data into case reports. Lecture plus lab/supervisory section. Supervisory fee: \$100; materials fee: \$50 per term.

- HBSK 5320. Individual psychological testing I (3) - H BSK 5321. Individual psychological testing II (1-3) - HBSK 5373. Practicum in literacy assessment \& intervention I (3)
Faculty. Prerequisite or corequisite: HBSK 4072. M aterials fee: \$150.


## HBSK 5375. Case studies of

 reading and cognitive development from a neuropsychological perspective (4)Professor K irk. M aterial s fee: $\$ 150$.
H BSK 5376. Practicum in literacy assessment \& intervention II (3)
Faculty. Prerequisite or corequisite: HBSK 4072, HBSK 5373. $M$ aterials fee: $\$ 150$.

H BSK 5377. Practicum in literacy assessment \& intervention III (3)
Faculty. Prerequisite: HBSK 5376. $M$ aterials fee: $\$ 150$.

HBSK 5579. Special topics in psychoeducational practice (1-3)
Faculty. Permission required. New and emerging developments and practices are examined and evaluated. Topics are announced in the preliminary and final course schedules distributed each semester.

HBSK 5580. Seminar in consultation and evaluation in reading (2-3)
Professor Peverly. Permission required. Current topics in reading and schooling; professional issues; preparation for integrative paper requirement.

HBSK 6320. Practicum in college instruction (1-3)
Faculty. Permission required. Supervised experience in preparation of instructional materials and in assessment of student performance at the college and university level.

HBSK 6380. Practicum in psychoeducational assessment with culturally diverse students (2-3) Professor Brassard. Permission required. Supervised experience in psychoeducational assessment, including observation, interviewing, and testing of children from culturally diverse backgrounds; integration and interpretation of data. Consideration of intervention procedures. Students work with clients in the Center for Psychological Services. Additional supervisory session required. Supervisory fee: $\$ 100$. M aterials fee: $\$ 50$.

HBSK 6382. Advanced practicum in psychoeducational interventions in schools (3)
Dr. Dillon. Permission required. Concurrent registration in H BSK 5280 (Fieldwork) required for all School Psychology students. Cog-nitive-behavioral interventions with children, adolescents, and their families. Special fee: $\$ 150$.

HBSK 6383. Neuropsychological assessment of children and adults (3)
Professor Kirk. Permission
required. Prerequisites:
HBSK 5033 or HBSK 5070; and H BSK 5320. A nal ysis, administration, and interpretation of special procedures used to assess brain damage/dysfunction in adults and children. Special fee: $\$ 150$.

HBSK 6480. School psychologist internship (0-4)
Dr. Dillon. Permission required. Limited to Ed.M. or doctoral students in school psychology. Supervised experience in the delivery of psychological services in approved
and appropriate agencies, institutions, and schools.

## HBSK 6522. Seminar in cogni-

 tive processes (3)Professor Peverly. Permission required. Advanced discussion of topics in cognitive psychology and their implications for instruction.

HBSK 6570-H BSK 6578.
Research in applied educational psychology
Permission required. Prerequisite: familiarity with statistical proce dures and research design. Required of all doctoral students admitted in or after 1983. Students participate in ongoing research or other special projects under the direction of a faculty member.

- HBSK 6570. Neurosciences
and education (0-3)
Professor Kirk.
- HBSK 6571. Cognitive
processes and strategies in
young children (0-3)
Professor Boehm.
- HBSK 6572. Mathematics
reasoning and mathematics
education (0-3)
Professor Ginsburg.
- HBSK 6573. Text compre-
hension (0-3)
Professor Williams.
- HBSK 6574. Cognitive
processes related to studying
(0-3)
Professor Peverly.
- HBSK 6576. Acquisition of reading and writing ability
(0-3)
Professor Perin.
- HBSK 6577. Psychoeduca-
tional aspects of deafness
(0-3)
Professor K retschmer.
- HBSK 6578. Research: Fam-
ily and school violence ( $0-3$ )
Professor Brassard.
HBSK 6575. Child development in the family context (1-4) Faculty. Permission required. Pre requisite: HBSK 5031. A nalysis of current research of the family's influence on the development of children. Individual exploration of research topics.

H BSK 6580. Advanced seminar in psychology and education (0-3)
Faculty. Permission required. Pre requisite: HBSK 5080-HBSK
5081. Limited to doctoral students in applied educational and developmental psychology. Research investigations of current educational problems.

HBSK 6584. Seminar in school psychology consultation (1-5)
Professor Peverly. Advanced seminar in school consultation and classroom management.

HBSK 6590. Seminar in concept acquisition in young children (3)

Faculty. Permission required. Theories (Bruner, Piaget, Gagne, K lausmeier) and research on the devel opment of concepts of time, space, and quantity in young children.

H BSK 7503. Dissertation seminar: Schooling and Reading (1-3)
Faculty. Permission required.
HBSK 8902. Dissertation advisement: Schooling and Reading (0)
Faculty. Permission required.

## Health Studies

H ealth Education
N ursing Education
Nutrition
Applied Physiology and Nutrition
Community N utrition Education
Dietetic Internship Program
N utrition and Public H ealth
Nutrition Education
Physical Education

## Health Education

(Code: TSD)
Program Coordinator: Professor
Charles E. Basch

## D egrees Offered:

M aster of Arts (M.A.)
M aster of Science (M.S.)
Doctor of Education (Ed.D.)

## Program D escription:

The Program in H eal th Education at Teachers College has had a long history in preparing heal th education special ists. H ealth education is a professional field that has expanded rapidly, primarily because of national policy that has emphasized health promotion and disease prevention. Its goal is to facilitate voluntary healthrelated behavioral and social change through the application of principles of behavioral and social sciences.

As such, health education is concerned with motivating and enabling individuals and groups to assume responsi bility for their health by learning and adopting behaviors, and supporting social policies that can promote and maintain health.

The program at Teachers College is grounded in the beli ef that community-level structures and organizations play a key role in determining the health of the people. It offers courses in which students learn to analyze and understand, and thus become able to influence community structures that either enhance or undercut heal th-promoting individual behaviors.

In addition to H eal th Education courses, students are encouraged to pursue interdisciplinary study and research throughout Teachers College, as well as other divisions of Columbia U niversity such as the School of Public H ealth and the Graduate School of Arts and Sciences. The Center for H eal th Promotion at Teachers College, which involves students and faculty, provides opportunities to take part in ongoing research projects in heal th promotion and disease prevention.

Students al so may participate in research being conducted in the Research Division at the

H ospital for Special Surgery, the Department of M edicine at the W eill M edical College of Cornell University, or with the Diabetes Research and Training Center at the Albert Einstein College of M edicine. Both have multi-institutional collaborative efforts involving faculty from the Program in H ealth Education at Teachers College.

The program prepares graduates who will assume positions of leadership and service as professional health educators in a variety of practice, research, and policy-making settings. G raduates of the program take positions as leaders in health promotion and disease prevention programs of voluntary heal th agencies, hospitals and other heal th care organizations, school systems, business and industry, and health-related governmental agencies in the United States and in other countries. They al so serve as educator-schol ars in elementary and secondary schools, colleges and universities, and as health services researchers in academic medical centers.

Each degree program has some flexibility in order to accommodate differences in previous professional preparation, interests, and professional career objectives of students. In general, the programs of study emphasize the development of competencies in assessing individual and community need for health education; planning effective health education programs; imple menting health education programs; coordinating the provision of heal th education services; acting as a resource person in heal th education; communicating health and health educational needs, concerns, and resources; evaluating the effectiveness of health education programs; and conducting research in health education.

Students at both the master's and doctoral levels are encour-
aged to become actively involved in departmental, college, and university functions which facilitate interaction with faculty and other students, and which have the potential to enrich the student's intellectual and professional growth. They are expected to undertake the complex and chall enging tasks associated with graduate study and other related learning experiences in such a manner as to demonstrate their intellectual discipline. Such discipline includes integrity, creativity, and innovation, as well as the student's abilities to conceptualize at a high level, think critically, communicate effectively both orally and in writing, and provide leadership.

Students also are expected to demonstrate the ability to appreciate, relate to, and communicate with ethnically, racially, and linguistically diverse individuals and groups of people who possess different personal, social, and cultural histories than their own. They are also encouraged to develop a strong sense of professional identity and commitment to professional affairs in health education. This might take the form of active membership in appropriate national, regional, or local professional organiza tions, participation in professional meetings, presenting an abstract or a paper at professional meeting, or serving on a professional committee.

Completion of the M.A. degree program makes graduates eligible to qual ify for certification as a Certified H eal th Education Specialist through the N ational Commission for H ealth Education Credentialing, Inc. and as a Certified Alcohol ism Counselor. Specific information regarding each program and its degree requir rements can be obtained by writing to the program coordinator, Professor Charles E. Basch.

## Special Application Requirements/Information:

All programs have ongoing admissions, and will review applications throughout the year. Preference in scholarship awards will be for those students who meet the priority deadline. The GRE test is not required for applicants to the M.A., M.S., or Ed.D. programs.

D octoral applicants are required to submit a writing sample (preferably a course paper, Master's thesis, or published article).

## D egre R equirements:

## Master of Arts

The minimum College require ments for the M aster of Arts degree in H eal th Education include satisfactory completion of a program of no less than 30 points of course work and a formal essay, or 32 points with an acceptable departmental inte grative project. At least 20 points must be earned in Teachers College courses. In order to broaden the student's background in education, no less than three Teachers College courses from outside the major department, each for a minimum of two points, must be taken. The remaining course work may be completed at Teachers Coll lege or in other graduate divisions of the University, but no more than 12 points from other faculties of the University will be credited toward the minimum point requirement. No transfer credit is granted for work completed at other institutions.

The program of study includes required and elective courses in several areas. The exact program and sequence of study are determined by the student's previous academic preparation, professional experience, and professional career objectives. Programs of study typically exceed the minimum College require ment of 32 points. Selection of
courses that fulfill an area requirement in the program of study listed below is guided by individual needs of the student and is not limited to those courses that are listed. It should be noted that the point require ments indi cated for each area of study given below are minimum requirements.

## Major (21 Points)

Required C ore C ourses (12 points):

- H BSS 4100, Introduction to health education (3)
- H BSS 4102, Principles of epidemiology in health promotion (3)
- HBSS 4118, Relapse prevention for problem behaviors (3)
- H BSS 5110, Determinants of health behavior (3)

ElectiveC ourses (9 points):

- HBSS 4000, A survey of nutrition: fads and popular fantasies (3)
- H BSS 4010, N utrition and behavior (3)
- HBSS 4011, W omen and weight (3)
- H BSS 4013, N utritional ecology (3)
- H BSS 4110, H eal th promotion for children and adolescents (3)
- H BSS 4111, Addictions and dependencies (3)
- H BSS 4112, Social policy and prevention (3)
- HBSS 4113, H uman sexuality education (3)
- H BSS 4114, H eal th promotion for multicultural popuIations (3)
- HBSS 4115, H ealth promotion for aging adults (3)
- H BSS 4116, H eal th education for elementary teachers (2-3)
- HBSS 4117, AIDS education (3)
- H BSS 4120, Topics in health education (2-3)
- H BSS 4123, Violence Pre vention (3)
- HBSS 4130, Alcohol and health (3)
- H BSS 4140, D eveloping workplace heal th promotion programs (3)
- H BSS 4141, H eal th and illness in cross-cultural perspective (3)
- H BSS 4901, Research and independent study in health education (1-4)
- H BSS 5111, Planning health education programs (3)
- H BSS 5112, Theory and practice of heal th communications (3)
- H BSS 5113, Community health anal ysis (3)
- H BSS 5115, A ssessment and counseling for heal th promotion (3)
- H BSS 5408, Practicum in individual health advisement (3)
- H BSS 5410, Practicum in health education (1-6)
- H BSS 6100, M easurement and program evaluation (3)
- H BSS 6145, H ealth psychology (3)

Essay or Integrative P roject (0 points):
Broad and Basic A reas of Pro-
fessional Scholarship and Prac-
tice (6-9 Points)

- One course in learning theory pertaining to a population group of interest, such as the child, adol escent, adult, or older adult.
- One course in communications, computing or instructional technology and media.
- One course in research methods, eval uation, measure ment, or statistics.


## Master of Science

The M aster of Science degree requires a minimum of no fewer than 60 points and an essay or project. The College requires that a minimum of 30 points be completed under the auspices of Teachers College, including 18 points that must be earned in Teachers College courses. In order to broaden the student's background in education, no less than three Teachers College courses from out-
side the major department, each for a minimum of two points, must betaken. The remaining course work may be completed at Teachers College or in other graduate divisions of the University.

Although no transfer credit toward the M aster of Science is granted for work completed at other institutions, a maximum of 30 semester hours of graduate credit may be used from other recognized institutions to reduce the degree requirement. A pplicants who have completed the M aster of Arts (M.A.) degree in H ealth Education through Teachers College, which is applicable to the M.S. degree, must offer a minimum of 45 points of the required 60 points under Teachers College registration.

The program of study for the $M$ aster of Science degree in H eal th Education includes required and elective courses in several areas. The exact program and sequence of study is determined by the previous academic preparation, professional experience, and professional career objectives of the student. Selection of courses that fulfill an area requirement in the program of study listed below is guided by individual needs of the student and is not limited to those courses that are listed. It should be noted that the point requirements indicated for each area of study given below are minimum requirements.

M ajor (36 Points):
Introductory C ore C ourses
(9 points):

- H BSS 4100, Introduction to heal th education (3)
- H BSS 4102, Principles of epidemiology in health promotion (3)
- H BSS 4118, R el apse prevention for problem behaviors (3)

A dvanced CoreC ourses (R equired 15 points):

- H BSS 5110, Determinants of heal th behavior (3)
- H BSS 5111, Planning health education programs (3)
- H BSS 5112, Theory and practice of health communications (3)
- HBSS 6100, M easurement and program evaluation (3)
- H BSS 6145, H ealth psychology (3)
- Elective Courses (12 points) (See M.A. el ective list for course selection)
- Essay or Integrative Project (0 points)

Broad and B asic A reas of Professional Scholarship and Practice (18 Points):

- N ature of Education, Persons, and Learning Processes (required 6 points)
- Communications, Computing and Instructional Technology and M edia (required 2-3 points)
- M ethods of Evaluation and Research (required 9 points)
- General Research M ethods (required 3 points)
- Statistics (required 3 points)
- M easurement and Evaluation (Required 2-3 points)


## Doctor of Education

The D octor of Education degree requires a minimum of 90 postbaccal aureate points and the preparation and defense of a dissertation. Up to 45 graduate level points taken at other institutions may be transferred toward doctoral requirements. Candidates for the Ed.D. degree are al so expected to demonstrate satisfactory performance on a departmental Certification Examination and to prepare and defend an acceptable dissertation project. In addition to the College requirements, all candidates for the Ed.D. degree in H ealth Education must have fulfilled the equivalent of the requirements for the $M$ aster of Arts (M.A.) degree in heal th education.

For those students entering the doctoral program with only a baccal aureate degree, the M.A. degree must be completed first. Those applicants who, at the time of admission to the program, do not present the equival ent of a master's thesis are required to prepare and present an acceptable essay or predoctoral project prior to or during the term in which 60 points of applicable graduate study have been completed.

The program of study for the D octor of Education degree in H ealth Education includes required courses, course work in required areas, and elective courses. The exact program and sequence of study is determined by the previous academic preparation, professional experience, and professional career objectives of the student. Programs of study typically exceed the minimum College requirement of 90 points, with most candidates offering between 90-120 points for the degree. Selection of courses that fulfill an area requirement in the program of study listed below is guided by individual needs of the student and are not limited to those courses that are listed.

A student who presents evidence of proficiency in those required courses or in an area of course work required for the program may, at the discretion of the major advisor and upon approval of the department chairman, select and substitute courses that represent more advanced study in the area in which the student has demonstrated competence, or additional preparation in other areas in which the student's preparation is less extensive. It should be noted that the point requirements indi cated for each area of study given below are minimum requirements.

M ajor (50 Points)
Introductory CoreCourses
(Required 9 points):

- HBSS 4100, Introduction to health education (3)
- H BSS 4102, Principles of epidemiology in health promotion (3)
- H BSS 4118, Relapse prevention for problem behaviors (3)

A dvanced C ore C oursee (Required 15 points):

- HBSS 5110, Determinants of health behavior (3)
- H BSS 5111, Planning health education programs (3)
- H BSS 5112, Theory and practice of heal th communications (3)
- HBSS 6100, M easurement and program evaluation (3)
- H BSS 6145, H ealth psychology (3)

Elective C ourses (21 points) (See M.A. list for course selection)

Research Seminar and Preparation of the D issetation ( 5 points):

- H BSS 6510. Research seminar in heal th education (3)
- H BSS 7501. Dissertation seminar in heal th education (2)
- HBSS 8900. Dissertation advisement in health education (0)

Broad and B asic A reas of Scholarship and Pradice (27-30 Points):

- $N$ ature of Education, Persons, and Learning Processes (required 6-9 points)
- Communications, Computing and Instructional Technology and Media (required 2-3 points)
- Methods of Evaluation and Research (required 17-18 points)
- General Research M ethods (required 6 points)
- Statistics (required 6 points)
- Measurement and Evaluation (Required 5-6 points)


## Courses:

## Introductory Courses

HBSS 4100. Introduction to health education (3)
Professor Allegrante. Determinants of health; relationship between health and human behavior; the role of health education as a strategy in health promotion and disease prevention; selected issues and problems.

## HBSS 4102. Principles of epi-

 demiology in health promotion (3)Professor Basch. Principles and methods of epidemiologic investigation; application of epidemiology to prevention and control of disease, using health education.

## HBSS 4110. Health promotion

for children and adolescents (3)
Professor Basch. Basic topics in promoting child and adolescent health; relationships between school, family, and community in promoting the health status of school age children.

## HBSS 4111. Addictions and

## dependencies (3)

Professor W all ace. Social-psychological, cultural, clinical, and pharmacol ogical factors associated with the use of psychoactive drugs and other compulsive behaviors.

## HBSS 4112. Social policy and

 prevention (3)Professor Allegrante. Analysis of current national health policy, its social, economic, and political determinants, and implications for health education.

## HBSS 4113. Human sexuality education (3)

Mr. R occo. Explore human sexuality from a variety of perspectives; explore their own attitudes about human sexuality and how they affect them personally and professionally; examine methods of teaching and designing sexuality education programs.

## HBSS 4114. Health promotion for multicultural populations (3)

Professor W allace. Health status, needs, and problems of multicultural populations in urban environments, and sensitivity to these issues in effective programs

H BSS 4115. Health promotion for aging adults (3)
Dr. Fulmer. Changes in aspects of health during the middle and later years; recent devel opments in the field of gerontology as well as legislation and community organization designed to meet health needs of aging persons.

## H BSS 4116. Health education

 for teachers (2-3)Ms. W halen. Review of concepts, issues, and content relevant for teaching children and adolescents; methods and resources for teaching various content are integrated throughout; topics include al cohol and drugs, sexual ity, environmental health, diet, weight and weight control, stress, and child abuse.

## H BSS 4117. AIDS education

 (2-3)Dr. Fullilove. The role of schools, parents, and communities in educating youth about AIDS and human sexuality; review of methods and resource materials for providing such education; consideration of controversial issues surrounding these topics.

## H BSS 4118. Relapse prevention

for problem behaviors (3)
Professor W all ace. Theory and techniques of relapse prevention across a range of addictive behaviors. Topics include relapse prevention for psychoactive substance use, eating disorders, gambling, and sex.

## H BSS 4120. Topics in health

 education (2-3)Faculty. Review and synthesis of current knowledge on a selected topic rel ated to health, such as teenage suicide, child abuse, violence, teenage pregnancy, and mental health.

H BSS 4121 Death education (3) Dr. Demmer. Designed to increase awareness/insight of the multidimensional aspects of death, dying, and bereavement. Gain skills as health care professionals in dealing with death, its causes, treatment of life threatening illness, including AIDS, suicide, and violent death. Explore customs across cultures, afterlife beliefs, near-death experiences, and ethical issues.

H BSS 4122. Women's health (3) Dr. W halen. Explore health issues as they relate to the female body and psyche including: body image, weight control, substance abuse, HIV, cancer, reproductive heal th, contraceptives, abortion, domestic violence, rape, sexual harassment, and Iesbian heal th issues with attention paid to the media and women's health.

## HBSS 4123. Violence Prevention

 (3)Professor W allace. This course covers the nature and prevention of invisible and covert, as well as visible and overt violence, including intrapersonal, interpersonal, family, community, gang, school, societal and international manifestations.

## HBSS 4130. Alcohol and health

 (3)Professor W allace. Background and theory related to alcohol use and misuse; health and social consequences of al cohol misuse; consideration of special populations, such as children of al coholics; review of alternative approaches to prevention and treatment.

## H BSS 4140. Developing work-

place health promotion programs (3)
Professor Allegrante. Provides a comprehensive step-by-step process to designing, implementing, and evaluating heal th promotion programs at the workplace.

H BSS 4141. Health and illness in cross-cultural perspective (3) Faculty. Examination of the role of healing and medicine, both historically and cross-culturally, and of the utility of considering cultural practices and beliefs when designing heal th education programs.

## Intermediate and Advanced Courses

H BSS 5110. Determinants of health behavior (3)
Professor Allegrante. Theory-based analysis of the cultural, social-psychological, and social-structural determinants of health-related behaviors; implications for planned change at individual, small-group, and community levels.

H BSS 5111. Planning health education programs (3)
Professor Basch. Process of developing social, epidemiological, behavioral, and educational diagnoses; principles of planning, implementing, and evaluating health education interventions.

HBSS 5112. Social marketing and health communications (3) Ms. Bogart. Principles and theories of marketing and communication applied to heal th education. Practice in developing and evaluating health communications.

HBSS 5113. Community health analysis and intervention (3) Professor Basch. Survey and anal ysis of concepts, issues, strate gies, and methods relevant to community health analysis and intervention.

HBSS 5115. Assessment and counseling for health promotion (3)
Professor W allace. A ssessment of clients' heal th compromising behaviors to reduce relapse and facilitate referrals to mental heal th staff; interventions for motivational counseling, psychoeducational group, and focus group formats are covered.

H BSS 5408. Practicum in individual health advisement (3)
Faculty. Individual and small group practice in the application of basic principles of counseling in the area of heal th problems.

HBSS 5410. Practicum in health education (1-6)
Faculty. Permission required. Advance registration required in the semester prior to taking the course. Intensive field experience in a community setting. Essay required at end of field experience. Sections: (1) Professor Allegrante (2) Professor Basch (3) Professor W allace.

HBSS 5710. Supervised teaching in health education (1-6)
Faculty. Permission required. Advance registration required in the semester prior to taking the course. Supervised health teaching in a school. Essay required at end of teaching experience.

H BSS 6100. Measurement and program evaluation (3)
Professor Basch. Theory, methods, and problems of measurement and eval uation; standards for evaluation of health, education and related social programs; skills in critical eval uation of research and evaluation reports.

## H BSS 6145. Health psychology

 (3)Faculty. Topics include social learning theory, attribution, and attitudes as they apply to health promotion, disease prevention, reactions to illness, and adherence to treatment regimens.

## Seminars and Research

HBSS 4901. Research and independent study in health education (1-4)
Faculty. Permission required. Research and independent study under faculty direction. Proposals must have prior approval of a faculty member. Sections: (1) Professor Allegrante (2) Professor Basch (3) Professor W al lace.

## H BSS 5510. Seminar in health

 education (3)Faculty. Current problems, issues, and trends in health education.

## HBSI5690. Colloquium in

health promotion (2-3)
Faculty. Permission required. A multidisciplinary colloquium involving faculty and students from several departments, as well as guest lecturers from outside the College and University. Analysis of the content, theory, and method of health promotion programs in various settings. Faculty and students discuss current research, practice, and policies in health promotion.

H BSS 6510. Research seminar in health education (3)
Faculty. Permission required. R eview of research literature, methods, and problems in health education.

HBSS 6901. Research and independent study in health education (1-4)
Faculty. Permission required. Open to matriculated doctoral students. Research and independent study under faculty direction. Pro-
posals must have prior approval of a faculty member. Sections: (1)
Professor Allegrante (2) Professor Basch (3) Professor W allace.

H BSS 7501. Dissertation seminar in health education (2) Faculty. Permission required. O pen to certified doctoral candidates only. Development and presentation of doctoral dissertation proposals.

H BSS 8900. D issertation advisement in health education (0)
Faculty. Permission required. Individual advisement on doctoral dissertations. Fee: equal to 3 points at current tuition rate for each term.
Sections: (1) Professor Allegrante (2) Professor Basch (3) Professor W allace.

## Nursing Education:

(Nurse Educator/Patient
Educator)
(Code: TN P)
Program Coordinator: K athleen A. O 'Connell, Ph.D., R.N., F.A.A.N.

Program Office: 678-3120
e-mail: ko199@columbia.edu

## D egree Offered:

Doctor of Education (Ed.D.)

## Special Application Requirements/Information:

 In addition to the requirements for admission to Teachers College, an applicant for the Doctor of Education degree in N ursing must be a registered nurse in any U.S. state or in Canada and hold a baccal aureate degree and a M aster's degree. A pplicants are required to take the G raduate R ecord Examination (GRE) and provide a writing sample (a course paper, M aster's thesis, or published paper). Also required is a professional resume.
## Program D escription:

Teachers College was the first academic setting to educate nurses. N ursing education began at Teachers College in 1899. The N ursing Education Program has a long and distin-
guished tradition of commitment to the education of nurses who have diverse roles in academic and community settings in the United States and abroad. Current placement of the program within the Department of H ealth and Behavior Studies ensures education with an interdisciplinary approach to problems in nursing, health, and society.

This program is designed for
(1) nurse practitioners with $M$ asters degrees who want to take the lead in developing innovative interventions for improving heal th behavior outcomes in primary care
(2) nurse educators with M asters degrees who want to gain more expertise in all aspects of education, including gaining the research skills that all faculty of the 21st Century will be expected to have.
(3) clinical specialists with $M$ asters degrees who want to improve their effectiveness in helping patients with chronic illness achieve maximal functioning.

The purpose of the this program is to give students who are registered nurses with masters degrees in nursing doctoral level education aimed at understanding and changing heal th behavior and at educating both clients and nursing students. It is well established that over $50 \%$ of mortality of U.S. citizens can be attributed to lifestyle. W ith the global ization of the market place, and of epidemics of infectious di seases, lifestyle and health behavior al so significantly affect the heal th and well-being of much of the world's population. Graduates of this program will be prepared to design interventions and conduct research on health behavior, health education and health promotion. In addition, graduates of the program will be conversant with history, theory, and current
trends in nursing so that they can use nursing knowledge and expertise to improve the health and well being of the citizens of the U nited States and of the global community. To insure that knowledge in nursing and in health behavior and health promotion is passed on to the next generation of nurses, graduates of this program will al so be prepared to engage in educationally sound programs for nursing students and for clients. Graduates of the program will thus be able to take their place among distinguished nursing leaders who carry out cutting edge research and engage in innovative strategies for teaching students of nursing and for teaching clients to modify their health behavior.

In order to build on previous work done by nurses and other investigators in the health behavior arena, students will attain a rich background in the study of nursing theory, nursing research, the history of nursing and professional issues affecting the nursing profession. In addition, students will gain expertise in managing heal th behavior change and in using research and statistical approaches. Study of methods and approaches to teaching clients and to teaching nursing students at undergraduate and graduatelevels will be included as an integral part of the preparation of nurse scholars. Students al so are expected to demonstrate the ability to appreciate, relate to, and communicate with ethnically, racially, and linguistically diverse individuals who possess different personal, social, and cultural histories than their own.

## D egree Requirements:

The Doctor of Education program in N ursing Education requires a minimum of 90 points beyond the baccal aureate degree. Up to 38 graduate level points taken at another institu-
tion may be transferred toward doctoral requirements. For all students, the program includes course work in four areas: N ursing, H ealth Behavior, Research, and Education. In addition, students choose a functional emphasis area in research, education or another area consistent with the program and with advisor approval. N ine points in addition to those points required of all students must be taken in the functional area. Points will be allotted as follows:

| N ursing | 42 points |
| :--- | ---: |
| H ealth and Behavior | 12 points |
| R esearch | 18 points |
| Education | 6 points |
| Emphasis area | 9 points |
| Elective | 3 points |
| Total | 90 points |

## N ursing Courses

HBSN 4001, Contemporary issues in nursing
HBSN 4004, Historical trends in nursing
HBSN 4050, H eal th problems and issues in society-political and economic concepts
H BS 5551, Bioethics 3
HBSN 6505, Theory construction in nursing3

HBSN 6507, Seminar on theory in practice
HBSN 6500, Research grant writing for health and behavior studies
HBSN 6501, Seminar in professional nursing
H BSN 5908, Independent study in professional nursing
HBSN 6600, Colloquium in nursing theory
HBSN 6908, Independent study in professional nursing 1-3
HBSN 6909, Independent study in nursing theory
HBSN 6940, Independent study in nursing research 1-3

## Health and Behavior Studies Courses

H BSS 4102, Principles of epidemiology in health promotion
H BSS 4011, W eight, eating problems and body image
HBSS 4114, H ealth promotion for multicultural populations 3
HBSS 4115, H ealth promotion for aging adults
HBSS 4118, Relapse prevention for problem behaviors
H BSS 5013, Strategies for nutrition education and behavior change
H BSS 5015, A ssessing nutritional status and dietary behaviors
H BSS 5110, Determinants of health behavior
HBSS 5113, Community heal th analysis and intervention
H BSS 5115, A ssessment and counseling for heal th promotion
HBSS 6145, H ealth psychology
H BSS 5112, Social marketing and health communications

## Education

(Courses may al so be selected from the courses focused on adult education in the Department of Organization and Leadership and appropriate education courses in other departments)
HBSN 4331, Curriculum in nursing education
HBSN 4332, Classroom teaching in nursing
HBSN 5031, Curriculum designs and issues in nursing education
HBSN 5530, Clinical teaching and evaluation
H BSN 5930, Independent study in nursing education
HBSN 6530, Seminar on curriculum in nursing education

HBSN 6532, Advanced teaching strategies in nursing education 3

HBSN 6635, Colloquium in nursing education
HBSN 6930, Independent study in nursing education

## Research

HBSN 5040, M ethods in nursing research
HBSN 6540, Dissertation design and development seminar
HBSN 7500, Dissertation seminar
HBSN 8900, Dissertation
advisement open to interested students, nurses, or non-nurses from other departments and include course work in nursing theory, professional nursing, and nursing research.

## Nursing Theory

H BS 4003. Crisis intervention (3)
Faculty. Study of general crisis phenomena within the framework of crisis intervention theory. Anal ysis of individual, family, and community dynamics.

## H BSN 4005. Theories of nurs-

ing (3)
Faculty. Theoretical foundations of nursing. Critical anal ysis of theories that explain the nature of nursing practice.

H BSN 5000. Nursing science (3) Faculty. Prerequisite: H BSN 4005. Examination of emerging issues in nursing research and health care. Relevance to theory devel opment and health policy are emphasized.

## HBSN 5001. The practice of

 nursing science (3)Faculty. Prerequisites: H BSN 4005 and HBSN 5000. Design and implementation of a nursing-science based strategy to advance practice. Priority given to populations considered at risk or underserved.

## HBSN 5005. Interdisciplinary

 theory in nursing (3)Professor O'Connell. Prerequisites: HBSN 4005, HBSN 5040 or equivalent. Evaluation of utility of theories and models from related disciplines in posing research problems in nursing. Focus on strategies of concept anal ysis and theory derivation.

H BS 5551. Bioethics (3) Dr. Camuñas. Review of bioethical issues in society, health care, and health care delivery.

## H BSN 6500, Research grant

 writing for health and behavior studies (3)Professor $\mathrm{O}^{\prime}$ 'Connell. Techniques of research grant preparation with emphasis on $N$ ational Institutes of H ealth grants will be covered. Students will prepare an actual grant. In addition, funding agencies, the budgeting process, building research teams, the review process, responding to reviewers, and resubmitting grants will be covered.

## H BSN 6505. Theory construc-

 tion in nursing (3)Faculty. Prerequisites: H BSN 4005 and HBSN 5005. Acquisition of the fundamental logic of theory devel opment and its application to nursing. Understanding and use of theory construction.

H BSN 6507. Seminar on theory in practice (3)
Faculty. Prerequisites: 2 courses in nursing theory. Design and evaluation of theoretical ly/empirically derived models for advanced practice in nursing education, management and care of clients.

HBSN 6600. Colloquium in nursing theory (3)
Faculty. Prerequisites: 2 courses in nursing theory. Examination of a selected nursing theory or theory problem in depth. Course may be repeated for credit if different topics are covered.

## H BSN 6909. Independent study in nursing theory (1-6)

Faculty. Permission required. Individual, guided learning experience in a selected nursing theory or theory problem. Topic agreed upon between student and faculty.

## Professional Nursing

## HBSN 4001. Contemporary

 issues in nursing (3)Faculty. Identification and analysis of current issues in nursing; development of appropriate background; formulation of personal stances on sel ected issues.

HBSN 4004. Historical trends in nursing (3)
Faculty. Consideration of the history of nursing and nursing education, and its influence on current developments in nursing.

HBSN 4050. Health problems and issues in society (3)
Faculty. Political and economic concepts influencing the delivery of heal th care services. Consideration of heal th issues facing the public and possible courses of action.

## H BSN 5908. Independent study

 in professional nursing (1-6) Faculty. Permission required. Individual, guided learning experience at the M aster's level in a selected aspect of professional nursing. Topic agreed upon between student and faculty.
## HBSN 6501. Seminar in profes-

 sional nursing (3)Faculty. Prerequisites: 2 courses in nursing professionalism and/or history. Examination of selected professional nursing problems or domain in depth. Course may be repeated for credit if different topics are covered.

HBSN 6908. Independent study in professional nursing (1-6) Faculty. Permission required. Individual, guided learning experience
at the doctoral level in a selected aspect of professional nursing. Topic agreed upon between student and faculty.

## Nursing Research

## H BSN 5040. Methods in nurs-

 ing research (3)Faculty. Prerequisites: HBSN 4005 H BSN 5000. A nalysis of hypothetical generation, study designs and data collection methods in nursing research with emphasis on applica tion to practice.

## H BSN 5043. Nursing research development (3)

Faculty. Prerequisites: H BSN 4005, H BSN 5040, or equivalents. Phil osophical foundations of empirical and naturalistic inquiry methods are examined with reference to developing a domain significant research problem. Emphasis given to clarification to study design within interdisciplinary knowledge relevant to nursing.

## HBSN 5340. Practicum in archives and historical research

 (3)Faculty. Prerequisites: H BSN
5040 and HBSN 5043. An introduction to the theory and practice of archives administration and historical research. Course treats the fundamentals of these two interre Iated fields through lectures, readings, practical exercises, and a project involving: (1) arrangement and description of a manuscripts collection or (2) an oral history interview. Projects focus on the N ursing Archives in Milbank Memorial Library.

## HBSN 5540. Seminar in Mas-

 ter's thesis development (3) Faculty. Permission required. G roup critique of thesis proposals; anal ysis of theory and research design. Open only to students writing theses. This course may be repeated as often as necessary until the student is ready to present the thesis proposal for faculty approval in HBSN 5541. Continuous Autumn/Spring enrollment is required until the semester in which presentation is held.HBSN 5541. Master's thesis seminar in nursing (3)
Faculty. Permission required. Pre requisite: H BSN 5540. Involves presentation of M aster's thesis proposal for faculty approval.

## HBSN 5940. Master's advise-

 ment in nursing (3)Faculty. Permission required. Individual advisement on M aster's the sis. May be repeated for up to 6 points. Involves active work toward completion of a thesis proposal that has been accepted by faculty.

HBSN 6540. Seminar on dissertation design development (3) Faculty. Permission required. Prerequisites: HBSN 5043, HBSN 4005, HBSN 5005, statistics, and certification. Required of all doctoral candidates. Group critique of dissertation proposals; focus on beginning to intermediate level aspects of anal ysis of theory and research design. This course may be repeated as often as necessary until the student is ready for the departmental examination. Once HBSN 6540 is taken, continuous Autumn/Spring enrollment in the course is required until the semester during which the departmental examination is held.

HBSN 6541. Advanced seminar on dissertation design development (3)
Faculty. Permission required. Prerequisite: H BSN 6540 and certification. Focus on advanced aspects of research design and method.

HBSN 7500. Dissertation seminar in nursing (3)
Faculty. Permission required. Pre requisite: H BSN 6540 and certification. The departmental examina tion, involving presentation of dissertation proposal for faculty approval. This course is required of all certified doctoral candidates and may betaken only once.

## HBSN 8900. Dissertation advisement in nursing (0)

Faculty. Individual advisement on doctoral dissertation following completion of all course work. Fee equal to 3 points at current tuition rate for each term. For continuous requir rements, see catalog on continuous registration for Ed.D. degree.

HBSN 6940. Independent study in nursing research (1-6)
Faculty. Permission required. Allows student to contract with individual faculty member for research related work in a defined area of study.

## Nursing Education

H BSN 4331. Curriculum in nursing education (3)
Faculty. Application of curriculum theories to the development of nursing curriculum. Simulated or real practice in curriculum development.

HBSN 4332. Classroom teaching in nursing (3)
Faculty. Corequisite or prerequisite: HBSN 4331. Consideration of teaching methods used in the college nursing classroom. Practice in one or more of the methods.

## HBSN 5022. Administrative

 roles of faculty (3)Faculty. Administrative responsibilities of faculty in collegiate nursing programs. Types of administrative organizations, agency relations, student relations, budget, collective bargaining, and accreditation. Roles in hiring, retention, promotion, and tenure of faculty.

## H BSN 5031. Curriculum designs and issues in nursing education (3) <br> Faculty. Prerequisite: HBSN 4331. Problems and issues in curriculum content, organization, and planning for curriculum devel opment. Selected nursing curricula critiqued.

HBSN 5230. Field experience in nursing education (3)
Faculty. Permission required. Prerequisites: H BSN 4331, H BSN 4332, HBSN 5530, HBSN 5031, HBSN 5022. Supervised practice in teaching student nurses in one or both settings, classroom and/or clinical.

HBSN 5530. Seminar: Clinical teaching and evaluation (3)
Faculty. Inquiry in effective strategies for teaching and evaluating students in the laboratory setting. Anal ysis of theory and rel ated research.

H BSN 5930. Independent study in nursing education (1-6)
Faculty. Permission required. Individual, guided learning experience at the master's level in a selected aspect of nursing education. Topic agreed upon between student and faculty.

HBSN 6530. Seminar on curriculum in nursing education (3) Faculty. Permission required. Open only to doctoral candidates. Intensive study of selected issues and/or designs in nursing curricula.

## HBSN 6532. A dvanced teaching strategies in nursing education

 (3)Faculty. Prerequisite: HBSN 4332.
Examination of generalized approaches to nursing education, subsuming but more generalized than teaching methods.

## HBSN 6635. Colloquium in nursing education (3)

Faculty. Prerequisite: determined by instructor based on topic selected. Examination of selected problems in nursing education practice and administration. Course may be repeated for credit if different topic covered.

## HBSN 6930. Independent study

 in nursing education (1-6) Faculty. Permission required. Individual, guided learning experience at the doctoral level in a selected aspect of nursing education. Topic agreed upon between student and faculty.
## Nutrition

Program Coordinator: Professor Isobel R. Contento
Professor Lawrence H. K ushi
Program Office: 678-3950
e-mail: nutrition-tc@
columbia.edu
W ebsite:
www.tc.columbia.edu/
~academic/nutri/

## Nutrition Education

(Code: TSA)
D egrees Offered:
M aster of Science (M.S.)
D octor of Education (Ed.D.)

Nutrition and Public Health
(Code: TSB)
D egrees Offered:
M aster of Science (M.S.)
D octor of Education (Ed.D.)

## Applied Physiology and Nutrition

(Code: TZR)

## D egree Offered:

M aster of Science (M.S.)

## Community Nutrition Education

(Code: TSC)
D egree Offered:
M aster of Education (Ed.M.)

## Special Application

Requirements/Information:
All programs have ongoing admissions, and will review applications throughout the year. Preference in scholarship awards will be for those applicants who meet the College priority deadline.

The GRE General Test is required for all programs. A writing sample is required for doctoral applicants, preferably a master's thesis, course paper, or published article.

Applicants must al so provide evidence of completion of prerequisite courses, including introductory nutrition, statistics, general and organic chemistry, biochemistry (requiring organic chemistry as a prerequisite) and human physiology. The latter two must have been taken within 5 years with a grade of B or better. Courses in food science and in food management and a course in microbiology are al so required for students wishing to become registered dietitians.

Applicants to the Dietetic Internship (DI) Program must submit directly to the Internship Director a specific DI application along with an ADA Plan V verification statement (see N utrition W ebsite for application form). In addition, applicants must apply for the
M.S. degree and befully admitted to the College. For students who do not have a bachel or's degree that sati sfies Plan V, the needed course work can be taken at undergraduate nutrition programs in the New York metropolitan area while completing the M.S. Our ADA academic program advisor will work with students to develop an integrated plan of studies and to facilitate the process.

Admission to the doctoral programs is based upon the applicant's academic and work record. N ormally a student will be formally admitted to the D octoral program only after completion of course work equival ent to the 40-point M aster of Science degrees or the 60 -point $M$ aster of Educa tion degree.

## Program D escription:

As we embark on the new millennium there is an increasing awareness of the fact that the quality of the diets that people habitually consume contributes to the quality of their lives. The Program in N utrition at Teachers College has, since its founding in 1909, been a leader in developing strategies for promoting health through encouraging dietary change.

Current academic initiatives and research focus on anal yzing and facilitating change in individuals and communities, and on ways of modifying both personal choice and the food system within which such choices are made. In particular, faculty and students are engaged in a number of food and nutritionrelated demonstration and research projects which evaluate the cognitive and psychosocial factors influencing food choice in children, adol escents, and adults; characteristics of the dietary change process; nutritional epidemiology; food and environment education in schools; relationship of women and food; food policy; and
social, economic, and technological factors affecting the long-term sustainability of the food system.

Building on its rich history, the Teachers College program aims to prepare graduates to take positions of leadership and service in nutrition counseling and education in heal th promotion and disease prevention programs in health agencies, hospitals, private practice, media organizations and the workplace; to serve as teachers or resource special ists in schools and universities; to fill a variety of planning, instructional, and administrative roles in community and public heal th agencies; or to serve as researchers in a variety of areas related to behavioral aspects of diet, nutrition education, nutritional epidemiology, clinical nutrition, and sustainability of the food system.

The program provides students a thorough grounding in nutrition science, nutrition education, and clinical nutrition. In addition, the program emphasizes the development of competencies in:

- Designing and implementing nutrition education with individuals, groups, and communities
- Facilitating healthful and ecological food choices
- Clinical assessments and nutrition counseling
- Understanding and applying principles of nutritional epidemiology
- A pplying nutrition science and exercise science principles to exercising individuals
- Thinking critically and independently
- Acting collaboratively and effectively with others in organizations and communities with regard to important food and nutrition issues
- Conducting food and nutri-tion-rel ated research

Because of the breadth of its aims, the program has long admitted academically qualified students with undergraduate degrees in fields other than nutrition or the related sciences, so long as they can meet the science prerequisites, since such students often bring valuable skills and attitudes to the graduate study of nutrition.

The program puts a heavy emphasis on providing students with practical experiences in addition to traditional classroom lectures and discussions. A mong the courserelated educational experiences avail able to students are: team projects in community nutrition, group planning and teaching of nutrition sessions to selected audiences in the community, food education and gardening projects in schools, dietary anal yses and on-line computer activities.

Students are welcome to participate in the activities of the N utrition Program's community service organization, the Earth Friends program, a food and environmental education program designed for children, parents and teachers, which provides students opportunities to practice nutrition education. In addition, students may participate in on-going research projects. Because of Teachers College's location in N ew York City, there are al so virtually unlimited opportunities for students to become involved in a variety of food/nutrition-related activities. The faculty and staff can arrange for students who have credit hours available to recei ve credit for such activities where appropriate.

## Dietetic Internship

For students interested in professional certification as registered dietitians (R.D.), the Department sponsors a Dietetic Internship program accredited by the A merican Dietetic Asso-
ciation (ADA). Two cohorts are admitted per year, in September and J anuary.

The Internship is designed to bridge a student's academic education and professional career and thus focuses on developing practitioner skills. The Internship sequence of courses (H BSS 5241-H BSS 5244) is offered on a parttime basis requiring 11 months to complete. Students may complete the M aster of Science concurrently with the Internship if academic requirements have been satisfied. Students who successfully complete the Dietetic Internship are then eligible to take the registered dietitian certification examination.

Students may enroll for all degree programs on a full-time or part-time basis.

## D egree requirements:

## M aster of Science

The major program emphases are in the fields of N utrition Education, N utrition and Public H ealth, and A pplied Physiology and $N$ utrition. Students in all three degrees may qual ify for the Dietetic Internship through coursework for the M.S. and completion of other academic prerequisites. All three M.S. degrees require the following core courses:

- HBSS 4010, Food, nutrition and behavior
- H BSS 4013, N utritional ecology
- H BSS 4014, Community Nutrition
- H BSS 5010, Advanced nutrition I
- H BSS 5011, Advanced nutrition II
- H BSS 5013, Strategies for nutrition education and health behavior change
- H BSS 5014, A nalysis of the current literature and research in nutrition
- H BSS 5015, A ssessing nutritional status and dietary behaviors
- H BSS 5034, Clinical nutrition
- H BSS 5036, N utrition counseling
- H BSS 5232, Extended fieldwork
- H BSS 6100, M easurement and evaluation in health education or
- HBSR 5582, Research design in movement sciences

In addition, all three M aster of Science programs require a block of supervised fieldwork as well as a substantial integrative departmental project. Fieldwork can take place in the N ew York City area, in other parts of the United States, or in an international setting, depending on the interests of the student.

N utrition Education: Students working toward the 40 to 43-point M aster of Science degree in N utrition Education have the option of electing courses that will especially equip them to conduct individual and group counseling/ patient education or to provide food and nutrition education in community, school, work site, or mass media settings.

In addition to the core curriculum in nutrition science, the behavioral aspects of diet, and nutrition education, students are required to take H BSS 5513 Seminar in nutrition education. They are also required to take at least one elective in each of the categories: nature of persons and the learning process, and curriculum or planning.

Students select their remaining courses from a variety of other disciplines in keeping with their own goals and their area of specialization, including general nutrition education in communities, work sites and schools; nutrition counsel ing; nutrition communications; or nutrition education with a
health education minor. The degree conforms to the guidelines for the training of N utrition Education Specialists set forth by the Society for N utrition Education.

Nutrition and Public H ealth: The Program in N utrition and Public H ealth is an approved program of the A ssociation of Faculties of Graduate Programs in Public H ealth N utrition. Course work for the 40 to 43-point M aster of Science degree conforms to the recommendations of that association, so that the degree is equival ent to one offered by a School of Public Health.

In addition to the core in nutrition science and the behavioral sciences, course work is required in vital statistics, epidemiology, and program planning. Other courses in public heal th are selected to complement the student's previous academic background and work experiences, and to take into account the student's interests and career goals.

The Nutrition and Public H ealth major prepares graduates to take leadership roles in government, community, and public health agencies, carrying out a variety of planning, instructional, and administrative tasks related to health promotion and disease prevention. These include community and individual nutritional assessment and evaluation; program planning and management; coalition building; and participation in multidisciplinary heal th teams to provide programs to meet public needs.

A pplied Physiology and $N$ utrition: The Program in N utrition and the Program in Applied Physiology offer a joint course of study leading to a 45 to 48point Master of Science degree in Applied Physiology and $N$ utrition (APN ). In addition to the core courses in nutrition,
students are required to take a core of courses in applied physiology (see section below on APN for more details). The program prepares students to provide individual counseling and group education in nutrition and exercise and to design and implement exercise and nutrition programs in weight control centers, work sites, fitness centers, health centers, schools, and hospitals.

Students in this program develop competencies required by the A merican College of Sports M edicine for certification as an Exercise Test Technologist, Exercise Special ist, Fitness Instructor, and/or Program Director. (See section below on A pplied Physiology and Nutrition for more details.)

Community N utrition Education: The program of study for the 60 -point M aster of Education degree in Community N utrition Education includes additional course work in advanced nutrition and permits a stronger emphases in the behavioral sciences, community assessment and planning, and education. A communitybased, research, or other integrative project is required.

## Doctoral Degrees

The Program in N utrition Education offers D octor of Education degrees in two areas of specialization: N utrition Education and $N$ utrition and Public H ealth. The two specializations prepare graduates for a variety of leadership positions in pol-icy-making, education and administration in schools and colleges, in government, and in public health and other service agencies. The program's goal is to turn out graduates capable of initiating needed action and of responding positively and creatively to the clearly inevitable changes of the coming decades in the physical, intellectual, and political envi-
ronments in which the food, health, and educational systems operate.

The general requirements for the Doctor of Education include a minimum of 90 grad uate credits, of which at least 45 must be taken under Teachers College registration. Overall, students will be expected to develop competence in nutrition science, behavioral science, methods of empirical research and data analysis, and broad areas of scholarship, in addition to developing special skills and knowledge appropriate to their chosen degree in nutrition education or public health nutrition.

Students will be expected to take courses in the following categories:
I. M ajor field and specialization (50-60 points)
II. Research and evaluation (12-18 points)
III. Broad and basic areas of professional scholarship (15-24 points)

The specific courses selected will depend on the student's particular background, interests and goals. In consultation with a Faculty Advisor, students should develop a program plan early in their course of study to provide a rational basis for their course selection. Students will al so be expected to pass a certification examination usually after the completion of 60 points and Research seminar in N utrition (H BSS 6550-6551) and to write a dissertation. (See N utrition Program descriptions of the doctoral degree requirements.)

## Courses:

## Introductory courses

H BSS 4000. Introduction to nutrition: Facts, fallacies, and trends (3)
Dr. Sporny and Professor Contento (Fall). Prerequisites: N one (Course is offered to nonmajors and to those
desiring admission to the N utrition Program and to the Dietetic Internship Program.) Overview of the science of nutrition and its relationship to health, taught through an anal ysis of historic and contemporary controversies, such as fat versus carbohydrates in the diet; vegetarianism; and supplement use. Special attention will be paid to A merican trends in food consumption and their impact on heal th and to the dietary practices employed in the pursuit of weight maintenance, health, and fitness.

## HBSS 4007. Foods and their uses (1)

Faculty. A practical course for nutrition majors and nonmajors who wish to learn food composition and how to use food in nutritionally, ecologically, economically, and culturally appropriate ways.

## H BSS 4010. Food, nutrition and

 behavior (3)Professor Contento. For nonmajors and majors. A study of physiological, psychological, and socio-cultural factors that affect eating behaviors and the development of individual and cultural food patterns. Topics include: the chemical senses, why we like sweet, salt, and fat; self-regulation of what and how much we eat; effect of early experiences with food; food and mood; interaction of food and culture through history; eating, cooking, and time use trends; meat meanings; psychosocial and cultural factors in food choice.

## H BSS 4011. Women and weight, eating problems and body

 image (2)Drs. Akabas and Bernstein. An intense, two-week short course held in the summer. This course for students and practitioners examines the psychol ogical, sociological, physiol ogical, and nutritional issues related to weight, eating disorders, body image and cultural messages as they relate to women. Potential interventions are also examined. The issues will be discussed using case material, films and the current research literature. Taught by a licensed psychologist and a nutritionist.

H BSS 4013. Nutritional ecology (2-3)
Dr. Liquori and Professor Gussow. A course for non-majors and majors. Nutrition and food as viewed from a global, ecological perspective. Topics include: food/population problems and food aid, food product development and promotion here and abroad, energy and food relationships, food safety and the changing American diet, organic agriculture and natural food, biotechnology, and other topics as appropriate.

## H BSS 4014. Community nutri-

 tion (2)Professor K ushi. This course provides an understanding of where and how food and nutrition services are delivered to further the national goal of heal thy people in healthy communities and of the roles of nutrition professionals in providing these services. Nutrition services, both private and government sponsored, will be the primary focus. The course will al so examine the roles of the nutrition professional, including the attributes, training and certifications needed to fill the roles.

HBSS 4150. Sports nutrition (3) Dr. Dolins (Summer Session A). For nonmajors only. A practical course designed to assist health professionals give the most accurate and up-to-date information to active people to help them improve health and performance. Integration of principles of nutrition and exercise physiology and application to exercising individuals. Topics for discussion include energy expenditure, fuel substrate metabol ism, specific nutrient needs, ergogenic aids, hydration, and weight issues for exercising individual s and athletes.

## Intermediate and <br> Advanced Courses

H BSS 5010. Advanced nutrition I (3)
Dr. Simpson. In-depth review of current knowledge and research on biochemical and physiological aspects of energy metabolism, carbohydrates, lipids and lipid metabolism, and proteins; regulation of intake and impact on heal th and disease.

H BSS 5011. Advanced nutrition II (3)
Dr. Pinto. In-depth review of current knowledge and research on the biochemical and physiological aspects of vitamins, minerals and phytonutrients; applications to diet.

## H BSS 5013. Strategies for nutri-

 tion education and health behavior change (3)Professor Contento. Understanding and application of theoretical frameworks from the behavioral sciences and education to design and deliver food and nutrition education and exercise promotion to various groups and to facilitate the adoption of healthful behaviors. Includes both didactic and field practice components.

## H BSS 5014. A nalysis of current

 literature and research in nutrition (3)Professor W olf. Critical examination and evaluation of current controversies and issues in nutrition and food. Topics are reviewed and discussed in depth. Students learn how to anal yze the medical and layperson literature concerning such topics as dietary fat and disease, calcium annd osteoporosis, fruit/vegetables and cancer, weight loss regimens, supplements and alternative therapies.

## H BSS 5015. A ssessing nutri-

 tional status and dietary behaviors (3)Professor K ushi. Study of methods for assessing food and nutrient intake, energy expenditure, and body composition, and for evaluating nutritional status of individuals and communities from clinical assessments, dietary intakes, and behavioral evaluation.

## HBSS 5018. Nutrition and human development (3)

Dr. Sporny (Summer Session A). Thefocus of this course is on the physiologic changes and nutritional needs throughout the life cycle. Pregnancy, fetal development, infancy, childhood, adolescence, adulthood, and the later years will be examined. Special attention will be paid to the following issues: breast feeding versus bottle feeding, introduction of solid foods to infants, coping with picky eaters, maintaining a heal thy feeding rela-
tionship between caregiver and child, preventing health and dietary problems in children and adolescents (including disordered eating), women's nutrition and reproductive function, menopause and hormone replacement therapy, and the changes that occur in an aging person and the dietary modifications needed to promote health and prevent disease.

## H BSS 5031. Nutrition adminis-

 tration (1-3)Faculty. M anaging nutrition/ heal th programs in private practice and community settings. Includes managing self and staff in terms of time and budget; seeking funding; planning and marketing.

## H BSS 5034. Clinical nutrition

 (3)M s. H amilton. This course is designed to provide students in nutrition and other health sciences with an overview of the pathophysiology of disease and resultant nutritional implications. The course provides a vocabulary which will enable students to converse with other medical professionals, a rationale for medical nutrition therapy and parameters for monitoring nutritional status of patients in a clinical setting.

H BSS 5036. N utrition counseling (2)
M s. M esznik. This course focuses on providing students an understanding of client-centered counseling models and practicing a variety of essential skills: nonverbal, active listening, goal assessment, motivational interviewing and group counseling. Special fee: $\$ 10$.

H BSS 5231-H BSS 5233.
Extended fieldwork in nutrition and education, nutrition and public health, and applied physiology and nutrition
Dr. Sporny. A block of supervised field experience required of all degrees. Fieldwork is taken near completion of course work.

- H BSS 5231. Nutrition and
public health (2-4)
- HBSS 5232. Nutrition and education (2-4)
- HBSS 5233. Applied physiology and nutrition (2-4)


## H BSS 5241-5244. Dietetic

 Internship in nutritionM s. Costa. Internship in service settings in metropolitan N ew York, R ockland and W estchester counties and Southern Connecticut. It includes experiences in clinical nutrition, community nutrition, food service management and research in dietetics. Cumulative experience totals 1000 hours. Malpractice/ personal liability insurance, health insurance, lab coat, and physical exam required.

## - H BSS 5241. Internship in

## clinical nutrition (3)

M s. Costa. Special fee: $\$ 150$.

- H BSS 5242. Internship in community nutrition (3)
M s. Costa. Special fee: \$150.
- H BSS 5243. Research and

Independent Practice (2)
Dr. Sherman. Special fee: $\$ 20$.

- H BSS 5244. Internship in food service (2)
Ms. M aro. Special fee: $\$ 20$.
H BSS 5333. Practicum in community service (1-2)
Dr. K och. Practical experiences in community, food, and nutrition programs.


## HBSS 5513. Seminar in nutrition education: Theory and applications (2)

Professor Contento. An in-depth examination of the use of current theories and research in the design, implementation, and evaluation of nutrition education interventions. Course is designed to supplement topics covered in H BSS 5013.
Required of nutrition education maste'rs and doctoral students. Students may register for more than one semester.

HBSS 5593. Seminar in nutrition in exercise and sport (2-3) Dr. Dolins. Discussions of interactions between exercise and nutrition as applied to health and fitness. Controversial topics emphasized. M ajors in either applied physiology or nutrition are eligible to enroll during their second year of study. (See also section on the interdisciplinary Applied Physiology and $N$ utrition degree program in this catalog.)

## Advanced Seminars and Research

## HBSS 5092. Guided study in

 nutrition (1-4)Faculty. Opportunity for advanced students to investigate areas of special interest in nutrition.

H BSS 6500-H BSS 6501. Seminar in nutrition (3 per section) Professors Contento and $K$ ushi. For doctoral and other advanced students. Eval uative discussion of current literature on specific nutrition and food-related topics.

HBSS 6550-H BSS 6551.

## Research seminar in nutrition

 (2-3 per section) Professors Contento and K ushi. Required of all Ed.M. and Ed.D. candidates. Discussion of current research issues and student projects. Students may register for more than one semester. Sections: (1) Professor Contento (2) Professor K ushi.H BSS 6902. Research and independent study in nutrition (1-4) Professors Contento and $K$ ushi. Open to matriculated doctoral students. Research and independent study under faculty direction. Sections: (1) Professor Contento (2) Professor K ushi.

H BSS 7502. Dissertation seminar in nutrition (2-3)
Professors Contento and $K$ ushi. Development of doctoral dissertations and presentation of plans for approval. Sections: (1) Professor Contento (2) Professor K ushi

H BSS 8900 Dissertation advisement in nutrition (0)
Advisement on doctoral dissertations. Fee: equal to 3 points at current tuition rate for each term. For requi rements, see catal og on continuous registration for Ed.D. degree. Sections: (4) Professor Contento (5) Professor K ushi

## Applied Physiology

and Nutrition
(Code: TZR)
Program Coordinators:
Professor Isobel R. Contento (Nutrition)
Professor R onald DeM eersman
(Applied Physiology)
Program Offices: 678-3950 or 678-3325

## D egree Offered:

M aster of Science (M.S.)

## Special Application Requirements/I nformation:

This program has ongoing admissions, and will review applications throughout the year.

The GRE General Test is required. Prerequisites for admission include a strong academic background, including at least one course each in sta tistics, human nutrition, human physiology, and biochemistry, the latter two taken within the last five years, in which grades of $B$ or better were earned. The biochemistry course must have had as a pre requisite at least a one-semester course in organic chemistry. A pplicants who are deficient in the required background in physiology and chemistry may be admitted on probation, with the understanding that the deficiencies will be completed in the first year of study.

The undergraduate specializations that provide the most relevant foundations for the APN program include nutrition, exercise physiol ogy, physical education, biology, physical therapy, nursing, health education, and psychology.

## Program D escription:

The Program in N utrition and the Program in Applied Physiol ogy offer a joint 45 to 48point $M$ aster of Science degree program. There are two main rationales for this program.
First, both disciplines are con-
cerned with the theory of energy intake, transformation, and liberation. Second, there are many practical problems that can be more satisfactorily addressed by attending to both nutrition and exercise than by attending to either one al one. M ost prominent are health problems such as obesity, cardiovascular disease, diabetes, and osteoporosis.

Health professional sand educators need to know how these two aspects of lifestyle interact in children and adults to enhance health and prevent disease. A nother application is to sports performance, physical fitness, and ergonomics.
Coaches, athletes, teachers, and work physiol ogists can profit from an understanding of how nutrition and exercise interact to influence work capacity. To be effective in applying these concepts, professionals must be aware of appropriate educa tional and behavioral change theory and strategies.

The program prepares students to:

- Provide individual counseling and group instruction in nutrition and exercise
- Design, implement, and eval uate exercise and nutrition programs in schools, weight control centers, work sites, recreational agencies, health centers, and hospitals
- Evaluate and apply research


## D egre R equirements:

Students take a set of core courses in both nutrition and applied physiology. While the program provides a solid foundation in the scientific basis of nutrition and exercise, it also emphasizes practical applications in all courses. The applied physiology lab courses provide hands-on experience in physiological measurement techniques. The interviewing and assessment courses provide firsthand experience in collection of nutritional data. Courses in
behavioral or educational methods provide insight into how applications are made in clinical or educational settings.

There are two tracks from which students may choose. Students in the fieldwork track participate in clinical or educational fieldwork in some setting that provides services/education in both exercise and nutrition, such as work site fitness programs, heal th promotion projects, etc. Such fieldwork develops concrete application skills. Our Iocation in New York City provides ready access to a wide range of field experiences and professional contacts that are helpful in securing employment after graduation. Contact Dr. Sporny for details.

Students in the research track learn to conduct research by participating in ongoing research projects involving the interaction of exercise and nutrition. Contact Professors DeM eersman or Contento for a list of current projects and resources.

Students in both tracks can complete the academic requirements for dietetic registration (R.D.) through coursework for the M.S. and programs in the New York area approved by the American Dietetic Association (ADA). Our ADA didactic program advisor will work with students to develop an inte grated plan of studies and to facilitate the process. The Program in N utrition offers a Dietetic Internship. Students may complete the Master of Science concurrently with the Internship if academic requirements have been satisfied. In addition, the program provides the academic back ground needed for the various certifications of the American College of Sports M edicine.

TheM.S. in A pplied Physiology and $N$ utrition requires thefollowing core of courses:

- BBSR 4095-4195, Applied physiology I and lab I
- BBSR 5194, Applied physiology lab II
- BBS 5068, Brain and behavior I
- BBS 5060, N euro motor responses and adaptation to exercise
- BBSR 5095, Exercise and health
- H BSS 5010-5011, Advanced nutrition I and II
- H BSS 5014, A nal ysis of current literature and research in nutrition
- H BSS 4010, Food, nutrition and behavior
- H BSS 4013, N utritional ecology
- H BSS 4014, Community nutrition
- H BSS 5034, Clinical nutrition
- H BSS 5036, N utrition counseling
- H BSS 5013, Strategies for nutrition education and health behavior change
- H BSS 5015, Assessing nutritional status and dietary behaviors
- BBSR 5582, R esearch design in movement sciences, or
- HBSR 5582, Research design in movement sciences
- H BSS 6100, M easurement and program eval uation
- H BSS 5593, Seminar in nutrition in exercise and sport


## Physical Education

Program Coordinator: Professor
Stephen Silverman

## D egrees Offered:

M aster of Arts (M.A.)
M aster of Education (Ed.M.) Doctor of Education (Ed.D.) in
M ovement Sciences and
Education

## Program D escription:

The program in Physical Education has a long and distinguished history. Teachers Col-
lege offered one of the first graduate degrees in physical education and continues to offer a wide array of opportunities for graduate study. In addition to courses in curriculum and teaching in physical education, there are a variety of other courses in the movement sciences, heal th studies, curriculum and teaching, and other areas that provide students with many opportunities for course options. All programs are designed to allow flexibility in program planning.

Students interested in other programs in Movement Science and Education (M otor Learning and Applied Physiology) should consult the program descriptions listed in the Department of Biobehavioral Studies.

## Physical Education

(Code: TRP)

## D egree Offered:

M aster of Arts (M.A.)

## Special Application Requirements/Information:

The GRE is not required.

## Program D escription:

The program provides students with a broad background in physical education, the movement sciences, and related areas. It is designed for students whose career goals include teaching in schools and other environments, fitness management, coaching, and rel ated areas. Students who are interested in obtaining K - 12 teacher certification in physical education must complete the state approved program and may require additional course work beyond that required for the degree. Students should contact the program coordinator for transcript review and to develop a plan to meet teacher certification requirements.

## D egree R equirements:

After consultation with their advisor, students will select a minimum of 18 points in courses. At least six credits in Curriculum and Teaching in Physical Education are required. A dditional courses may be sel ected from the following areas:

- Applied physiology
- M otor learning
- Psychosocial study of human movement
- H ealth education
- N utrition

Integrative Paper:
As part of their culminating experience, students present a special project that integrates their course experiences with an independently defined issue of professional concern.

## Curriculum and

Teaching in Physical
Education
(Code: TRC)

## D egrees Offered:

M aster of Arts (M.A.)
M aster of Education (Ed.M.)
Doctor of Education (Ed.D.)

## Special Application

 Requirements/Information: Teach and Study applicants should request a separate application from the program office. They must al so submit the Teachers College A pplication for Admission.D octoral applicants are required to submit a writing sample (preferably a course paper, master's thesis, or published article). Prior formal training and/or teaching experience in physical education is required for admission to the doctoral program. A pplicants without a major or minor in physical education at the undergraduate level should submit letters verifying their physical education teaching experience.

## Program D esoription:

The M.A. program is designed so physical educators can develop greater knowledge about curriculum and teaching. The Ed.M. program is designed to prepare teachers for leadership roles in schools. The program provides opportunities to study school-wide issues of curriculum, teaching, administration, and school reform. Specialized concentrations al so are available in physical fitness program development and administration. A program leading to certification as a director of physical education is available.

The Teach and Study Program, which is for qualified teachers of physical education, assists applicants in finding a physical education teaching position (part-time or full-time) in schools in the Teachers College vicinity.

The Ed.D. program prepares students to serve in leadership roles as specialists in physical education curriculum and teaching, administrators in schools and colleges, teacher educators, and/or researchers and faculty members in institutions of higher education.

## D egree Requi rements

The specific career goals of the student are used in planning the graduate program. Programs include one or more of the following features:

## Fild-B ased Experiences

 The theoretical study of curriculum and teaching concepts is integrated with field-based applications of those concepts Part of the student's graduate study experience takes place in elementary, secondary, or college physical education settings. Students who are concurrently employed as physical education teachers use their own schools as field sites; other students are assigned to selected field sites.Program D esign and D evelopment Students critically examine an array of traditional and innovative physical education program designs, and then formulate their own conception of curriculum. Program evaluation techniques are studied and then used to conduct field evaluations of ongoing programs. Students learn systematic techniques for program development and use them to plan programs for field settings.

Teaching: Performance and A nalysis
Students critically evaluate existing theories and models of teaching, and devise their own concepts of teaching. A spectrum of analytic techniques is used to analyze videotaped and live samples of interactive teaching.

Study and A pplication of Concepts of H uman M ovement and H ealth Students study theory and research in the applied sciences of anatomy, movement analysis, exercise physiology, health, nutrition, and motor learning, and their applications to program designs and teaching strategies.

Culminating Experience
Students in the M.A. and Ed.M. programs are required to complete a culminating experience that integrates material from their course work. This experience can be field-based, theoretical, or a research project related to physical educa tion. The student and his or her advisor will discuss and design an individual experience that helps meet the goals of the student's program.

Research C ompetence (for Ed.D. students)
All doctoral students develop proficiency in research and complete a dissertation under the advisement of a faculty sponsor. W ith their career goals in mind, students design their programs to include course
work that focuses on research methods and the results of research in physical education, and participate in research experiences to demonstrate competence and successfully complete the dissertation.

All doctoral students participate in an intensive seminar that reviews research in physical education and al so attend a continuous research semester during most semesters of their enrollment in the program. Students must satisfactorily complete all parts of the program certification exam and a literature review to be certified and officially begin the dissertation process.

During the dissertation process, students work closely with an advisor and complete pilot studies to enhance their research skills. Students who are planning on academic careers that will include conducting research may participate in faculty research projects throughout their program to further enhance their research preparation.

## Courses:

H BSR 4700. Student teaching in physical education (3) Student teaching in both elementary and secondary schools for a full semester. Includes a required seminar.

H BSR 5040. Curriculum designs in physical education (3)
Review of existing curriculum designs; traditional and new. Systematic development of curriculum plans.

## HBSR 5041. Analysis of teach-

 ing in physical education (3) Professor Silverman. An analysis of the decisions and actions of teachers in relation to their role as director of learning. Includes experiences in executing and analyzing teaching skills.H BSR 5043. Administration of physical education and athletics (2-3)
Dr. M eyers. For prospective and in-service administrators. Preparation for carrying out administrative functions related to program planning, scheduling, budgeting, equipment and facilities, safety and liability, staff development, community relations, and others.

H BSR 5240. Fieldwork in curriculum and teaching in physical education (2-4)
Field projects in program evaluation, curriculum development, anal ysis of teaching, and the application of teaching strategies.

H BSR 5543. Seminar in physical education (2 or 3)
Professor Silverman. Examination of current issues in curriculum and teaching in physical education relative to diverse student populations and associations with other disciplines. Advanced students prepare and present integrative papers.

H BSR 6340. Supervision in physical education (3)
For doctoral candidates and supervisors in curriculum and teaching. Field-based experiences in the anal ysis and evaluation of programs and teacher performance.

H BSR 6540. Research seminar in curriculum and teaching in physical education (3)
Examines research problems and methodologies in curriculum and teaching in physical education.

## Courses that overlap all Movement Sciences Programs

HBSR 4070. Introduction to the psychosocial study of human movement (2-3)
Professor Muzii. A general overview of knowledge and theory pertaining to the psychosocial dynamics of behavior in sports and dance.

H BSR 4900. Research and independent study in movement sciences and education (1 or more) Permission required. Master's degree students undertake research and independent study under the direction of a faculty member.

HBSR 5200. Fieldwork in movement sciences and education (1-4)
Permission required. For advanced students prepared to investigate problems.

HBSR 5582. Research design in movement sciences and education (3)
Professor Silverman. Basic concepts of research design and statistical anal ysis. Students learn to interpret articles and design projects.

HBSR 6900. Supervised independent research in movement sciences and education (1-8)
Permission required. For
advanced students who wish to conduct research under faculty guidance. See HBSR 4900 (General Offerings).

HBSR 7500. Dissertation seminar in movement sciences and education (0-3)
Permission required. Candidate develops proposal for doctoral dissertation in consultation with advisor. Seminar convenes only on days when candidates present proposals for approval.

HBSR 8900. Dissertation advisement in movement sciences and education (0) Individual advisement on doctoral dissertation. Fee: equal to 3 points at current tuition rate for each term. For requirements, see catal og on continuous registration for Ed.D. degree.

## Special Education

Program Coordinators: see below

D egrees Offered:
M aster of Arts (M.A.)
M aster of Education (Ed.M.)
Doctor of Education (Ed.D.)
D octor of Philosophy (Ph.D.)

## Administration of Special Education Programs

(Code: TEF)
Program Coordinator: Professor Dennis M ithaug
D egree Offered: Ed.D.

## Behavior Disorders (Autism, Emotional Disturbance)

(Code: TEK)
Program Coordinator: Professor R. D ouglas Greer

D egrees Offered: M.A., Ed.D ., Ph.D.

## Blindness and Visual Impairment

(Code: TEB)
Program Coordinator: Dr.
Virginia S. Stolarski
Contact information:
vss5@columbia.edu or
stolarsk@exchange.tc.
columbia.edu
D egrees Offered: M .A., Ed.D.,
(Ph.D. in Physical Disabilities
with an approved Ph.D. disser-
tation sponsor)

## Cross-Categorical Studies

(Code: TEZ)
Program Coordinator: Professor
Dennis Mithaug
D egre Offered: Ed.D.

## Deaf and Hard of Hearing

(Code: TED)
Program Coordinator: Professor
R obert K retschmer
D egrees Offered: M.A., Ed.D ., Ph.D.in Physical Disabilities

## Guidance and Habilitation

(Code: TEG)
Program Coordinator: Professor
Linda Hickson
D egree Offered: M.A.

## Instructional Practice in Special

 Education(Code: TEA)
Program Coordinators: all
faculty
D egre Offered: Ed.M.

## Mental Retardation and <br> Intellectual Disability (including

 Autism)(Code: TEM)
Program Coordinator: Professor
Linda Hickson
D egrees Offered: M.A., Ed.D., Ph.D.

Physical Disabilities
(Code: TEP)
Program Coordinators:
Professor Dennis Mithaug,
Dr. Virginia S. Stolarski, and
Professor R obert K retschmer
D egrees Offered: M.A., Ed.D ., Ph.D.

## Research in Special Education

(Code: TER)
Program Coordinators:
Professors Linda H ickson and
R. Douglas Greer

D egree Offered: Ed.D.

## Supervision of Special Education

(Code: TES)
Program Coordinator: Professor Dennis Mithaug
D egree Offered: Ed.M.

## Special Application Requirements/I nformation:

 All A pplicants: Interviews are required for applicants to the Blindness and Visual Impairments, Deaf and H ard of H earing, and Mental Retardation programs. Other program coordinators may arrange for applicants to have an admissions interview.A student in this program who wants to qualify for N ew York State teaching certification must complete the program and file for certification prior to February 1, 2004. Teachers College is developing new programs to meet regulations that go into effect after February 1, 2004. These programs will be outlined in next year's catalog.
M.A. Applicants: Experience in special education is not a pre requisite for acceptance.

Doctoral Applicants: Submit an academic or professional writing sample.

Program D escription:
The special education programs at Teachers College build upon a more than 75 -year tradition of leading the field of special education in policy, practice, and research for individuals with di sabilities across the age span.

Students who earn M.A., Ed.M., Ed.D., and Ph.D. degrees in special education from Teachers College assume leadership and scholarly positions at all levels of professional activity including public and private schools, community and national service agencies, hospital and rehabilitation programs, colleges and universities, research centers, and local, state, and federal educational agencies.

The graduate course work, independent studies, research projects, and dissertations draw from the following five areas:

- Special Education Foundations. Includes course work on theories of process and models of practice, cognitive structure and process, behavioral selectionism and complex behavior, disability constructs, equity and excellence in public policy, psycholinguistics and verbal behavior, and family studies and child development.
- Service Delivery Systems. Includes administration and supervision, pedagogy, enrichment and accel eration, interdisciplinary programming, community-based systems change, infancy/early childhood intervention, elementary education, transition and habilitation, urban education, and technology.
- Exceptionality A reas. Provides course work in behavioral disorders (e.g., autism, emotional disturbance), blindness and visual impairment, deafness and hearing impairment, mental retarda tion and intellectual disability (including autism), physi-
cal disabilities, and multiple handicapping conditions including intellectual disabilities coupled with sensory and/or physical disabilities.
- Assessment and Intervention Strategies. Includes management of social and unsocial behavior, communication and language, mobility, mathematics, reading, problem solving, visual skills and visual perceptual processing, and self-regulation.
- Research and Evaluation. Includes applied behavior anal ysis, experimental research with individuals, group experimental design, program evaluation, ethnography, and post-positivistic inquiry.

In addition to lectures and seminars in the preceding five areas of study, students participate in special projects and complete practicum assignments in a variety of settings, which include the following:

The Center for Educational and Psychological Services provides learner-centered demonstrations of assessments and evaluations, instructional practices, and follow-up evaluations that promote student-directed learning and performance across settings and time. Spe cial education students work in collaboration with students from school psychology, health and nutrition as well as clinical and counseling psychology programs. The Center is housed in excellent facilities at Teachers College and provides opportunities for practicum experience and research-based demonstrations of effective practice. The Center has an extensive reme diation and testing library, and testing rooms, observation rooms, and audio and video recording capabilities available for graduate student use.

The Center for Opportunities and Outcomes for People with Disabilities provides support for research, evaluation, and demonstration efforts ai med at increasing opportunities for individuals with special needs to become fully included members of society.

The Center provides opportunities for students to participate in research and evaluation projects in such areas as diversity and cultural differences; language and communication; motivation and verbal behavior; systems of schooling and models of service delivery; inclusion and its social impact; families and siblings; cognition, personality, problem solving, and selfregulated thinking; reading, literacy, and the arts; interpersonal decision-making and abuse prevention, personnel preparation; social justice and social policy; and self-determination and independence.

The Fred S. K eller School, N ew RochelleCABAS ${ }^{\circledR}$ Program, David Gregory School and The M argaret Chapman School serve as training and research sites for students enrolled in the behavioral disorders and behavior anal ysis programs in special education. These schools use comprehensive applications of behavior anal ysis (CABAS®) within a cybernetic system. They providetraining and research that is responsive to student behavior and consistent with the epistemological tenets of behavioral selectionism. Students in the M.A. Program in Behavioral Disorders are required to do their practica at CABAS® schools.

The Department maintains close working rel ationships with a wide network of public and private schools, agencies, and clinical facilities. Students may participate in field-based activities ranging from the Very Special Arts Festival hosted by the $N$ ew York City

Board of Education and Teachers College to tutoring programs for children with disabilities living in neighborhood communities.

Financial Aid
In addition to College-wide financial aid, instructional, research, and administrative internships may be available through the Program in Special Education. The D epartment collaborates with schools and agencies in the metropolitan area to provide internships. W hen funds are available, federal traineeships and assistantships are awarded by the program to qual ified students. In order to be eligible for a federal traineeship, an applicant must be a U nited States citizen and be fully admitted to a degree program.

Students are encouraged to apply for all types of financial aid for which they are eligible. Paid internships are available for some students who have been admitted to the Program in Behavioral Disorders. The N ew York City Board of Education has, for a number of years, provided full scholarships for anyone interested in becoming a teacher for individuals who are deaf or hard of hearing, and blind or visually impai red. Endowed fellowships and research assi stantships are available to students who are preparing for careers in the education of people with mental retardation and intellectual disability.

## D egree Requirements:

## M aster of Arts

Behavioral Disorders
Blindness and Visual Impairment Deaf and H ard of H earing Guidance and H abilitation M ental Retardation and Intellectual Disability Physical Disabilities

Students who enroll in the M.A. programs prepare for positions as teachers and clinicians who serve individuals with a full range of abilities and disabilities in a wide array of settings based in schools, communities, and agencies. They specialize in serving individuals with disabilities across the age span, birth to death, from one or more of the above service delivery categories.

Students who gain admission work with a faculty advisor to design a program that meets their interests and fulfills the requirements for a degree in special education with related N ew York State teacher certification. Candidates for the M.A. degree must complete supervised practica requirements arranged on the Teachers College campus and in schools and agencies in the City. They al so must complete an integrative project, or, in the case of the Blindness and Visual Impairment Program, complete a comprehensive examination, prior to award of the degree. In designated programs, master's degree course work al so fulfills the requirements for New York State Certification as a Teacher of Special Education, Teacher of the Blind and Partially Sighted, or Teacher of the D eaf and H ard of H earing.

C ore D epartmental Requirements for Special Education M.A. Students

- HBSE 4002, Instruction and curriculum for students with disabilities
- H BSE 4003, Foundations for teaching all students to maximize learning (formerly HBSE 4092)
- HBSE 4015, Applied behavior analysisl-pedagogy, management and curriculum
- HBSE 4079, Language development and habilitation: the foundation
- H BSE 4082, A ssessment and evaluation of infants, children and youth with exceptionalities
- HBSE 4300, Section 1 Supervised practicum in educational assessment and evaluation of infants, children and youths with exceptionalities (required for majors in TEB, TEM , and TEP)

Specialization Requirements,
B ehavioral Disorders (TEK):

- HBSE 4015, Applied behavior analysis I-Pedagogy, management and curriculum
- HBSE 4041, Education of persons with behavioral disorders (two courses)
- H BSE 4043, Applied behavior anal ysis II-Pedagogy, management and curriculum
- H BSE 4704X, Observation and student teaching in special education (3 points each term)
- HBSE 4704Y, Observation and student teaching in special education (3 points each term)

Specialization Requirements, Blindness and Visual I mpairments (TEB):

- H BSE 4060, Psycho-social implications of vision loss on people with blindness and visual impairment and their families
- H BSE 4061, Anatomy and physiology of the visual system and related implications
- H BSE 4062, Instruction and curriculum devel opment for infants, children and youth with blindness and visual impairment
- H BSE 4063, Communication skills for people with blindness and visual impair-ments-I
- H BSE 4064, Communication skills for people with blindness and visual impair-ments-II
- H BSE 4700, Pre-Student teaching seminar (required for pre-service applicants)
- H BSE 4706, Observation/ Student teaching in special education: BVI (or HBSE 5306 Section 1)
- H BSE 4880, Section 2 Opportunities and outcomes for people with disabilities
- H BSE 5062, Orientation and mobility
- H BSE 5306, Section 1 Advanced practica in special education: BVI - teaching (or H BSE 4706)
- H BSE 5306, Section 2 Advanced practica in special education: BVI- assessment and evaluation (or H BSE 4300 Section 1)
- H BSE 5063, Technological aids and assistive devices in the education of toddlers, children and youth with disabilities (or H BSE 4005)
- H BSE 4871, American Sign Languagel
- HBSE 4872, American Sign Languagell

Specialization Requirements, D eaf and $H$ ard of $H$ earing (TED):

- H BSE 4070, Psychosocial and cultural aspects of individuals who are deaf or hard of hearing, I
- H BSE 4070, Psychosocial and cultural aspects of individuals who are deaf or hard of hearing, II
- HBSE 4071, M ethods of teaching reading and writing to individuals who are deaf or hard of hearing
-HBSE4071, Language, reading, and writing instruction in the content areas for individuals who are deaf or hard of hearing
- HBSE 4072, Development of language of individuals who are deaf or hard of hearing
- H BSE 4073, Teaching of speech to individuals who are deaf or hard of hearing
- H BSE 4074, Linguistics of American Sign Language
- HBSE 4079, Language development \& habilitation: The foundation
- HBSE 4700, Observation and teaching of individuals who are deaf or hard of hearing
- H BSE 4700, Observation and student teaching of individuals who are deaf or hard of hearing
- H BSE 4871, American Sign Language I
- H BSE 4872, American Sign Language II

Non-D epartment Requirements:

- A\&H L 4101, Phonetics and phonology
- BBSQ 4042, Introduction to audiology
- BBSQ 5125, Clinical approaches to aural habilita tion

Specialization Requirements,
M ental Retardation and
Intellectual D isability (TEM):

- H BSE 4000, Introduction to special education
- HBSE 4001, Teaching students with disabilities in the general ed classroom
- H BSE 4005, Applications of technology in special education
- H BSE 4006, W orking with families of children with disability
- H BSE 4010, N ature and needs of students with mental retardation
- H BSE 4011, Education of students with mental retardation
- H BSE 4700, Pre-student teaching seminar
- H BSE 4701, Observation \& student teaching in mental retardation-I
- H BSE 4701, Observation \& student teaching in mental retardation-II
- H BSE 4880, Section 2 Opportunities and outcomes for people with disabilities

Specialization Requirements, Physical Disabilities, Pre \& In-Service(TEP):

- H BSE 4010, N ature and needs of students with mental retardation
- HBSE 4011, Education of students with mental retardation
- H BSE 4031, Education of students with physical disabilities
- H BSE 4040, Introduction to behavioral disorders
- HBSE 4083, Theory and techniques for educating infants, children and youth with sensory impairments
- HBSE 4700, Pre-student teaching seminar
- HBSE 4703, Observation \& student teaching in physical disabilities-l
- HBSE 4703, Observation \& student teaching in physical disabilities-II
- HBSE 4880, Section 2 Opportunities and outcomes for people with disabilities


## M aster of Arts

Guidance \& Habilitation (TEG)

The M.A. in Guidance and $H$ abilitation, which does not lead to $N$ ew York State teacher certification, is available to interested students with a broad range of career goals.

Required Department C ourses:

- HBSE 4003, Foundations for teaching all students to maximize learning (formerly HBSE 4092)
- HBSE 4010, N ature and needs of students with mental retardation
- HBSE 4011, Education of students with mental retardation
- H BSE 4015, Applied behavior analysis
- HBSE 4060, Psycho-social implications of vision loss on people with blindness and visual impairment and their families
- HBSE 4070, N ature and needs of individuals who are deaf or hard of hearing
- H BSE 4071,Language, reading, and writing instruction in the content areas for individuals who are deaf or hard of hearing
- H BSE 4082, Assessment \& evaluation of infants, children and youth with exceptionalities
- HBSE 4092, Introduction to foundations of special education opportunity
- HBSE 4880, Section 2 Opportunities and outcomes for people with disabilities
- H BSE 5309, Advanced practica in special education: habilitation of persons with devel opmental disabilities
- H BSE 5309, Advanced practica in special education: habilitation of persons with developmental disabilities
- H BSE 5909, Problems in special education: guidance, habilitation, \& career education
- H BSE 6004, Policy and administration


## Master of Education

Instructional Practice in Special Education (TEA)
Supervision of Special Education Programs (TES)

Students interested in advanced study in selected areas of special education may seek the Ed.M., which represents a broadening and refinement of knowledge and skills in areas such as those listed above. Award of the Ed.M. requires satisfactory completion of a special project reflecting the attainment of advanced professional competencies. Successful candidates for the Ed.M. are eligible for additional certifications as well. The Ed.M. in Supervision of Special Education Programs leads to N ew York State supervisory certification.

## Ed.M. Instructional Practice (TEA)

CoreR equirements for all Ed.M.
Special Education M ajors:

- HBSE 5010, Problems and issues in special education
- HBSE 6010, Advanced study of problems and issues in special education

Specialization Requirements: Students work in collaboration within faculty advisor to select course work that builds upon their previous professional experiences and increases their current repertoire of skills and knowledge.

N on-D epartment C ourses R equired for A II Student M ajors in D egree Program:

- HUDM 4122, Probability and statistical inference
- HUDM 5122, Applied regression anal ysis

Supervision of Special Education Programs (TES)
Department Courses Required for All Student M ajors in Degree Program

CoreR equirements for all Ed.M.
Special Education M ajors:

- H BSE 5010, Problems and issues in special education
- HBSE 6001-I, Research in special education-quantita-tive/empirical-I
- H BSE 6001-II, Research in special education-qualitative methods-II
- H BSE 6001-III, Research in special education-single subject design-III
- HBSE 6010, Advanced study of problems and issues in special education

Specialization Requirements:

- H BSE 4092, Introduction to foundations of special education opportunity
- H BSE 5310, Advanced practica in special education: policy and administration in special education
- H BSE 6002, Administration of special education programs
- H BSE 6004, Public policy and administration in special education
- HBSE 6410, Advanced internship: policy and administration in special education

Non-D epartment Courses Required for All Student M ajors in D egre Program:

- ORLA 4001, Overview of administration
- ORLA 4021, Introduction to management systems
- ORLA 4039, Leadership and institutional analysis
- ORLA 4042, The role of the state in education governance, policy \& practice
- HUDM 4122, Probability and statistics
- HUDM 5122, A pplied regression analysis


## Doctor of Education

Exceptional ity F ocus A reas:
Behavioral Disorders
Blindness and Visual Impairment
Cross-Categorical
Deaf and H ard of H earing
M ental Retardation and Intellectual Disability
Physical Disabilities
Professional Specialization A reas:
A cademic Cognate
Administration and Supervision
Instructional Leadership
Pedagogy
Research and Evaluation
Technology in Special
Education
Urban Special Education
Students of exceptional ability who are interested and committed to contributing to special education through leadership and scholarly work may apply for the Ed.D. degree, which represents the highest level of achievement in the profession. The doctoral program prepares graduates to assume leadership roles in teacher edu-
cation programs in colleges and universities in this country and in other countries, to administer special education programs in schools and agencies, and to conduct research in special education and related services.

Students may focus their work and course of study by exceptionality focus, by age of pupil, and by professional specialization. Students may tailor their course work to meet minimum requirements for N ew York State certification as School
Administrator and Supervisor.

## Doctor of Philosophy

Exceptional ity F ocus A reas:
Behavioral Disorders
M ental Retardation and Intellectual Disability
Physical Disabilities (including Blindness and Visual
Impairments, D eaf and H ard of $H$ earing)

Research and Evaluation
Emphasis
Students with excell ent potential as researchers and theoreticians who are interested in schol arly careers in special education, education, and related social sciences may apply for the Ph.D. degree program, which represents the highest level of achievement in the Arts and Sciences. This degree program is administered jointly by Teachers College and the Graduate Faculty of Columbia University. Prospective students may obtain information on program offerings by contacting the program office.

Department Courses Required for All Student Majors in Degree Program
CoreR equirements for all Ed.D. and Ph.D. Special Education M ajors TEB, TED, TEF, TEK, TEM, TEP, TEZ):

- HBSE 5010, Problems and issues in special education
- HBSE 6001-I, Research in special education-quantita-tive/empirical-I
- HBSE 6001-II, Research in special education-qualitative methods-II
- HBSE 6001-III, R esearch in special education-single subject design-III
- H BSE 6010, Advanced study of problems and issues in special education
- H BSE 7500, Dissertation seminar in special education
- HBSE 8900, Dissertation advisement in special education

Specialization Requirements, A dministration \& Supervision (TEF):

- H BSE 4003, Foundations for teaching all students to maximizelearning (formerly HBSE 4092)
- H BSE 5310, Advanced practica in special education: policy and administration in special education
- H BSE 5310, Advanced practica in special education: policy and administration in special education
- H BSE 6002, Administration of special education programs
- H BSE 6004, Public policy and administration in special education
- HBSE 6410, Advanced internship: policy and administration in special education
- HBSE 6410, Advanced internship: policy and administration in special education

Specialization Requirements, Blindness and Visual Impairment (TEB):

- H BSE 5063, Technological aids and assistive devices in the education of toddlers, children and youth with disabilities (or H BSE 4005)
- H BSE 5901, Problems in special education: mental retardation
- H BSE 5906, Problems in special education: blindness and visual impairment (minimum two semesters, 3 points each term)
- HBSE 6406, Advanced internship: blindness and visual impairment (minimum two semesters, 3 points each term)
- H BSE 6506, Advanced seminar: blindness and visual impairment (minimum two semesters, 3 points each term)

Specialization Requirements,
B ehavior D isorders (TEK):

- H BSE 5040, Behavior analysis: advanced seminar
- HBSE 5304, Advanced practica in special education: behavior disorders
- HBSE 5904, Problems in special education: behavior disorders
- HBSE 5915, Organization and supervision of special education through organizational behavior analysis
- HBSE 6015, Verbal behavior
- HBSE 6031, Single case experimental design in education, medicine, and therapy
- HBSE 6504, Advanced seminar: special education-behavior disorders

Specialization Requirements, D eaf and $H$ ard of $H$ earing(TED):

- H BSE 5307, Advanced practica in special education: deaf or hard of hearing
- HBSE 5907, Problems in special education: deaf and hard of hearing
- HBSE 6070, Psychology of deafness
- HBSE 6407, Advanced internship: deaf and hard of hearing
- HBSE 6507, Advanced seminar: special education-deaf and hard of hearing

Specialization Requirements, $M$ ental Retardation and Intellectual D isability (TEM ):

- H BSE 5301, Advanced practica in special education: mental retardation and intellectual disability
- HBSE 5901, Problems in special education: mental retardation and intellectual disability
- H BSE 6401, Advanced internship: mental retardation and intellectual disability
- H BSE 6501, Advanced semi-nar-special education: mental retardation and intellectual disability

Specialization Requirements, Physical Disabilities (TEP):

- H BSE 5303, Advanced practica in special education: physical disabilities
- H BSE 5903, Problems in special education: physical disabilities
- HBSE 6403, Advanced internship: physical disabilities
- HBSE 6503, Advanced seminar: physical disabilities

Specialization Requirements,
Research in Special Education (TER):

- H BSE 5312, Advanced practica in special education: research
- HBSE 5912, Problems in special education: research
- H BSE 6412, Advanced internship: research
- HBSE 6512, Advanced seminar: research

N on-Department Courses
Required for All Student
M ajors in Degree Program

- HUDM 4122, Probability and statistical inference
- HUDM 5122, Applied regression analysis


## Courses:

A completelisting of the course offerings in Special Education appears below. Courses required for degree programs generally are given one or more times each year. Specific details regarding scheduled times for particular courses may be obtained by contacting the program coordinator or by consulting the schedule of classes which is published each semester by the College.

Foundations, Exceptionalities, and Methods
H BSE 4000. Introduction to special education (2-3)
Dr. Stolarski (Spring, Summer Session A). Permission Required. Enrollment limited to 25 students. Emphasis is placed on the identification of characteristics of individuals with di sabilities and the impact of the characteristics on the learner and family members of the learner. The course is a study of the nature, psycho-social and educational needs of individuals, across the lifespan, with physical, mental, emotional, or sensory impairments. Emphasis is placed on the way these special education programs fit, or should fit, into ongoing work in schools. Special fee: $\$ 25$.

## H BSE 4001. Teaching students with disabilities in the general

 education classroom (2-3) Professor Mithaug (Summer Session A) or Dr. Convertino (Spring). Problems of educational assessment, curriculum and teaching, organization, and guidance of students with physical, cognitive, affective, and sensory disabilities.HBSE 4002. Instruction and curriculum for students with and without disabilities (2-3)
Professor Hickson. Curriculum devel opment and research validated methods of instructing students with and without disabilities from early childhood through adolescence, including methods of teaching reading and mathematics and methods of enrichment and remediation. M aterials fee: $\$ 10$.

## H BSE 4005. Applications of technology in special education (2-3)

This course is intended to provide preservice and in-service special education teachers with basic information on assistive and instructional technology appropriate for use with infants, children and youths who require special education and related services. M aterials fee: \$25.

H BSE 4006. Working with families of children with disabilities (2-3)
Dr. Stolarski or Dr. Culverhouse. Current and historical perspectives on parent involvement in the spe-
cial education and habilitation of infants, children, and youth with disabilities and their families. Emphasis on strategies and materials to facilitate a continuum of parent and family participation to strengthen the relationships between home, school and the community. Students are trained in conflict resolution. Special fee: \$10.

## H BSE 4008. D isability: Recon-

sidered and reconstructed (2-3)
Dr. Bejoian. The course introduces students to the study of disability as social construct framed within a reconstructivistic context that challenges current theoretical and practical approaches and incorporates individual, interpersonal, educational, and organizational perspectives. Special fee: $\$ 10$.

## HBSE 4010. N ature and needs of persons with mental retardation and intellectual disabilities

 (2-3)Professor Hickson. Characteristics of persons manifesting different degrees of mental retardation/ intellectual disability, autism and other developmental disabilities throughout the lifespan. The course emphasizes implications for educational programming, curriculum and instruction. M aterials fee: $\$ 10$.

HBSE 4011. Education of persons with mental retardation and intellectual disabilities (2-3)
Dr. Urv. Curriculum development and research validated methods of instructing students with mental retardation/intellectual disability, autism and other developmental disabilities from early childhood through adolescence across ability levels. M aterials fee: $\$ 20$.

HBSE 4012. Program and curriculum development for persons who are severely/profoundly handicapped (2-3) Professor Hickson. Program and curriculum devel opment for children with severe/profound handicaps at different maturational levels. Identification and critical analysis of existing curricula, methods, materials; evaluation and use of community resources. M aterials fee: $\$ 10$.

H BSE 4015. Applied behavior analysis I: Pedagogy, management, and curricula (2-3) Professor Greer. Basic applications for learners without reading or writing repertoires. Strategic applications of the science of behavior to instruction, management, curriculum-based assessment, isolation of locus of learning/behavior problems, measurably effective instructional practices.

## H BSE 4031. Education of students with physical disabilities

 (2-3)Dr. Pawelski. Curriculum development and research validated methods of instructing students with physical disabilities from early childhood through adolescence in regular classes, special classes, hospitals, and home instruction.

## H BSE 4040. Introduction to

 behavioral disorders in children and young adults (2-3)Professor Greer. Origins and descriptions of behavioral disorders and social mal adjustment; ontogenetic and phylogenetic evidence, overview of treatments.

HBSE 4041. Education of persons with behavioral disorders (2-3)
Dr. Twyman. Permission required. Fall: A ssessment, curriculum design, and methodology for teaching and remediating the behavioral disorders of young children with or without developmental disabilities and adolescents with developmental disabilities and related conditions (i.e., autism); Professor Greer for Summer A: Assessment, curriculum design, and methodology for teaching and remediating the behavioral disorders of children and adolescents without developmental disabilities. M aterial s fee: $\$ 10$ each semester.

HBSE 4043. Applied behavior analysis II: Pedagogy, management, and curricula (2-3) Professor Greer. Prerequisite: H BSE 4015. Advanced applications to learners with writing, reading, and self-editing repertoires. Teaching operations and curricula designed to teach academic literacy, self-management, and problem solving. D ata based applications required. Special fee: $\$ 15$.

H BSE 4060. Psycho-social implications of vision loss on people with blindness and visual impairment and their families (2-3)
Dr. Stolarski. H BSE B majors must enroll for 3 points. Introduction to the education of children, youths and adults with blindness and visual impairment and their families; historical aspects; development of professional agencies and services; psychosocial aspects of blindness; problems and issues of the field. Special fee: $\$ 40$.

HBSE 4061. A natomy and physiology of the visual system and related implications (2-3) Dr. Stolarski. H BSE B majors must enroll for 3 points. Structure and function of the human eye; visual perceptual development; anomalies and diseases; functional and traditional methods of vision screening; interpretation of medical reports and records; analysis of environmental factors; utilization of low vision. Observations, simuIations, and clinical practice. For special educators, health professionals, and reading specialists. Special fee: $\$ 40$.

## HBSE 4062. Instruction and

 curriculum development for infants, children and youth with blindness and visual impairment (2-3)Dr. Stolarski or Ms. Saunders. Pre requisite: proficiency in translation and transcription of the Braillecode and typing, or H BSE 4063 (may be taken concurrently) Learning theories; programs, methods, materials, and aids in the education of infants, children and youth with blindness and visually impairments. Particular emphasis is placed on the identification of appropriate instructional methods and materials for teaching reading and mathematics to learners with vision loss. Students complete 50 hours, outside of class in observation and clinical practice in assessment, development of instructional objectives, and adaptation of materials. Special fee: $\$ 40$.

## HBSE 4063. Communication

 skills for people with blindness and visual impairments- I (3) Dr. Amato or Ms. Boisvert. (First of a two-semester course. Students register for 3 points each term.)Corequisites: H BSE 4060 and H BSE 4061. Research and practice in communication skills and media. Students Iearn transcription and translation of the Braillecode in the context of development of appropriate curriculum materials and research validated methods of instructing students with vision loss, including methods for teaching and remediating skills in reading and mathematics. M ethods for teaching aural and tactile reading are covered extensively. Special fee: $\$ 40$.

## H BSE 4064. Communication skills for people with blindness and visual impairments- II

 (2-3)Dr. Amato or Ms. Boisvert. (Second of a two-semester course. Students register for 3 points each term.) Corequisite: H BSE 4062. Prerequisite: HBSE 4063 or Library of Congress Certification in Braille Transcription. Research and practice in communication skills and media. Students learn transcription and translation of the $N$ emeth code for mathematics in the context of development of appropriate curriculum materials and research validated methods of instructing students with vision loss, including methods for teaching and remediating skills in mathematics and science. ParticuIar emphasis is placed on the creation of instructional materials such as tactile graphs to promote skills acquisition. Special fee: $\$ 40$.

## H BSE 4070. Psychosocial and

 cultural aspects of people who are deaf or hard of hearing I, II (2)Dr. Rosen. Introduction to the education of children, youth, and adults who are deaf or hard of hearing; historical development; psychosocial and cultural aspects; problems and issues of the field. M aterials fee: $\$ 10$.

H BSE 4071.I Methods of teaching reading and writing to individuals who are deaf or hard of hearing (2-3)
Dr. Berchin W eiss. Study of special methods of teaching in programs for children and youth who are deaf or hard of hearing at nursery, elementary, and secondary levels, with particular attention to the development of language within
the language arts subject areas. M aterials fee: $\$ 10$.

H BSE4071, II Language, reading, and writing instruction in the content areas for individuals who are deaf or hard of hearing (2-3)
M s. H artman. Study of special methods of teaching in programs for children and youth who are deaf or hard of hearing at nursery, elementary, and secondary levels, with particular attention to the development of language within the academic subject areas. Materials fe:: $\$ 10$.

## H BSE 4072. D evelopment of

 language of individuals who are deaf or hard of hearing I, II (2-3)Professor K retschmer. Language devel opment of deaf or hard of hearing individual sat different maturational levels. Prerequisite: H BSE 4079 or equivalent.

H BSE 4073. Teaching of speech to individuals who are deaf or hard of hearing (2-3)
Ms. R othschild. Development of speech in children who are deaf or hard of hearing, methods of teaching speech to children who are deaf or hard of hearing, development of educational programs for the maximum utilization of residual hearing. Lab required. M aterials fee: $\$ 10$.

## H BSE 4074. Linguistics of

 American Sign Language (3) Professor K retschmer. An in depth study of the phonology, morphology, syntax, and pragmatics of American Sign Language. Aspects of the psycho- and socio-linguistics of this language are stressed.
## H BSE 4078. Problems in the

 education of bilingual children who are deaf or hard of hearing (2-3)Faculty. Introduction to the psychosocial, linguistic, cognitive, and academic effects of bilingualism and techniques for intervention and assessment for the H ispanic child who is deaf or hard of hearing.

HBSE 4079. Language development and habilitation: The foundations (2)
Professor K retschmer. Course designed to establish a firm foun-
dation in generative syntax, semantics and pragmatics as it relates to language development and habilitation. M aterials fee: \$10.

H BSE 4082. A ssessment and evaluation of infants, children and youth with exceptionalities (2-3)
Dr. Stolarski. Enrollment limited to 20 per term. An in-depth study of theoretical principles of measurement, assessment and evaluation necessary for appropriate identification of needs as related to implementation of educational plans for infants, children and youth with disabilities. A pplications of assessment data in instructional programs for children with disabilities, Students complete approximately 50 hours of assessments and evaluations of children with disabilities, as part of the course, through work in the Center for Educational and Psychological Service. Special fee: $\$ 50$. (This course is a prerequisite for HBSE 4300), which is now offered in the spring.

HBSE 4083. Theory and techniques for educating infants, children and youth with sensory impairments (2-3)
Dr. Stolarski. Discussion of diagnostic theories for teaching infants, children and youth with multiple sensory impairments; sensory motor, cognitive, language, and adaptive skills devel opment delays. Particular emphasis is focused on designing curriculum that is applicable and appropriate for promoting literacy, communication and mathematical skills for these unique populations given their mode and codes of learning. Students complete assignments utilizing the various team approaches, including familial involvement. $M$ aterial s fee: $\$ 30$.

HBSE 4092. Introduction to foundations of special education opportunity (2-3)
Professor Mithaug. Theory and practice in the habilitation and redress of human relationships affecting people with disabilities across the life span. Materials fee: $\$ 10$.

HBSE 4300. Supervised practicum in the educational assessment of exceptional children (2-3)
Supervisors affiliated with CEPS. Permission required. Prerequisite: HBSE 4082. Participation in interdisciplinary, psychoeducational assessment of exceptional children. A nal ysis of observational and test data; formulation of educational programs for exceptional learners. Conducted in the Center for Educational and Psychological Services (CEPS) or in appropriate community facilities. Course meets the equival ent of one full day a week. Lab fee: $\$ 150$.

HBSE 4700-H BSE 4710. Observation and student teaching in special education
Permission required. Course requires 3-5 days a week for participation in community, school, and agency programs and a weekly seminar on campus.

- HBSE 4700. Pre-student
teaching (2) (preservice and
first year teachers)
- H BSE 4701-I. Mental retar-
dation and intellectual dis-
ability I (3) (pre-service and first year teachers)
- H BSE 4701-II. Mental retar-
dation and intellectual disabil-
ity II (3) (in-service teachers)
- HBSE 4703. Physical dis-
abilities (3)
- HBSE 4704. Behavioral disorders (3)
- HBSE 4706. Blindness and visual impairment (1 or 3)
Special fee: $\$ 20$
- H BSE 4707-I. Deaf and
hard of hearing I (4)
- HBSE 4707-II. D eaf and
hard of hearing II (4)
- H BSE 4709. Habilitation (3)
- HBSE 4710. Mental retarda-
tion/sensory impairment (3)
H BSE 4871. A merican Sign Language I (1-2)
Dr. R osen. A course designed to develop beginning receptive and expressive skills in American Sign Language.

H BSE 4872. A merican Sign Language II (2)
Dr. R osen. A course designed to develop intermediate receptive and expressive skills in American Sign Language

H BSE 4880. Opportunities and outcomes for people with dis-abilities- annual conference (1-2)
Professor Hickson and Dr. StoIarski. Research conference sponsored by the Center for Opportunities and Outcomes for People with Disabilities provides a forum for the presentation and discussion of research findings by Center researchers and their colleagues from the field. A nnual Spring conference is offered for credit. Students enrolling for 4880 for 2 points must attend biweekly colloquia-H BSE 4881 in the spring term.

H BSE 4881. Opportunities and outcomes for people with dis-abilities- colloquium (0-1) Professor Hickson and Dr. StoIarski. Biweekly research colloquia sponsored by the Center for Opportunities and Outcomes for People with Disabilities provides a forum for the presentation and discussion of research findings by Center researchers and their colleagues from the field.

H BSE 5010. Study of the philosophic foundations of special education (3)
Professor K retschmer. Permission required. For post-M aster's and advanced M aster's students in the Department of H ealth and Behavior Studies in special education. Overview of major philosophic orientation within Social Sciences and Special Education. Special fee: $\$ 10$.

## H BSE 5040. Behavior analysis: <br> Advanced seminar (3)

Professor Greer. Permission
required. Prerequisites: HBSE
4015 and HBSE 4043. Advanced issues in applied behavior analysis and behaviorism as they relate to special education. Topics and projects involving parent and teacher training, research methodology, legislation, behavioristic theories.

## H BSE 5062. Orientation and mobility (2-3)

Dr. McM ahon. H BSE B majors must enroll for 3 points. Principles and practices of orientation and mobility with primary emphasis on training for people with blindness and visual impairments. D evelopment of self-concept, environmental awareness, and orienta-
tion to the environment from infancy through adolescence. Study of validated mobility techniques. Practice of techniques under conditions simulating blindness; observations and practice in preparing and presenting material. M aterials fee: \$40.

HBSE 5063. Technological aids and assistive devices in the education of toddlers, children and youth with disabilities (2-3) Dr. Stolarski. Technological aids and devices in the education of toddlers, children and youth with disabilities, including those with cognitive based di sabilities, sensory impairments, and multiple handicapping conditions. This course is taught as a col laborative effort between TC, D ominican College, the $N$ ational Center for Disability Services, and the Computer Center for People with Visual Impairments at Baruch College. Field trips, demonstrations, and laboratory sessions. Laboratory fee: $\$ 150$.

## HBSE 5072. Language and com-

 munication for individuals who are deaf or hard of hearing (2) Professor K retschmer. Communication systems and theories, principles of psycholinguistics applied to language learning in persons who are deaf.HBSE 5300-H BSE 5314.

## Advanced practica in special

 educationPermission required. Guided experiences in selected special education programs for advanced students. W eekly seminar meetings. Supervised group field visits. Pre service internships arranged. Students submit reports anal yzing experiences.

## - H BSE 5300. General (1-6)

Faculty/Staff.

- HBSE 5301. Mental retardation and intellectual disability (1-6)
Professor Hickson.
- H BSE 5303. Physical disabilities (1-6)
Professor Mithaug or Dr. Stolarski.
- HBSE 5304. Behavioral disorders (1-6) Professor Greer. - H BSE 5306. Blindness and visual impairment (1-6)
- Section 1 Advanced practica in special education: BVI teaching (or HBSE 4706)
- Section 2 Advanced practica in special education: BVI assessment and eval uation (or HBSE 4300 Section 1)Dr. Stolarski.
- HBSE 5307. Deaf and hard of hearing (1-6)
Professor K retschmer.
- HBSE 5309. Habilitation of persons with developmental disabilities (1-6)
Professors Hickson and
Mithaug.
- HBSE 5310. Policy and administration (3)
Dr. K elly. Letter grade ( 6 credits for full-year continuous enrollment required).
- H BSE 5311. Teacher educa-
tion (1-6)
Dr. Stolarski.
- HBSE 5312. Research (1-6) Faculty.
- HBSE 5314. Behavior analysis and instruction (1-6)
Professor G reer.
H BSE 5901-H BSE 5915. Prob-
lems in special education
Permission required. Qualified students work individually or in
small groups under guidance on practical research problems. Proposed work must be outlined prior to registration; final written report required.
- HBSE 5901. Mental retarda
tion and intellectual disability (1-4)
Professor Hickson.
- HBSE 5903. Physical disabilities (1-4)
Professor Mithaug or Dr. Stolarski.
- HBSE 5904. Behavioral disorders (1-4)
Professor Greer.
- HBSE 5906. Blindness and visual impairment (1-4)
Dr. Stolarski. (minimum two semesters, 3 points each term)
- HBSE 5907. Deaf and hard of hearing (1-4)
Professor K retschmer.
- HBSE 5909. Guidance, habilitation, and career education (1-4)
Professors Hickson and Mithaug.
- HBSE 5910. Policy and
administration (1-4)
Professor Mithaug.
- H BSE 5911. Teacher educa-
tion (1-4)
Professor Mithaug and
Dr. Stolarski.
- HBSE 5912. Research (1-4)

Faculty.

- HBSE 5914. Behavior analy-
sis (1-4)
Professor Greer.
- HBSE 5915. Supervision and administration of special education and human resource agencies through organizational behavior analysis (3)
Professor Greer.
HBSE 6001. Research in special education (2-4)
Permission required. Prerequisites: HUDM 4122 and HUDM 4123.
Instruction in the devel opment, conduct, and reporting of research. Student research studies. All doctoral students in Special Education in H ealth and Behavior Studies must take all three sections. Students register for II and III in the same semester. Special fee: $\$ 30$.
- HBSE 6001-I. Research and
experimental design (2-4)
Professor Hickson, Fall.
- HBSE 6001-II. Qualitative
approaches (2)
Professor K retschmer, Spring.
- HBSE 6001-III. Single case
studies (2)
Professor Greer, Spring.
HBSE 6002. Administration of special education programs (3) Professor Mithaug. For post-master's special educators. Prerequisite: basic courses in school administration and experience in special education. Foundations of leadership and management of special education programs.

H BSE 6003. Teacher education in special education (3)
Dr. Stolarski. Permission required. Open only to advanced students. Organization and development of personnel preparation programs in special education in colleges and agencies. Focus on preservice and continuing professional development programs.

H BSE 6004. Public policy and administration in special education (3)
Professor Mithaug. Provides analytic perspective to assess special education policies and practices
within the social and economic contexts that affect immediate and long-term expectations, opportunities, and outcomes for persons with disabilities.

H BSE 6010. Advanced study of problems and issues in special education (3)
Professor Mithaug. Permission required. Required of doctoral students in Special Education in the Department of $H$ ealth and Behavior Studies. D esign and apprai sal of current practices and policies in the education of exceptional children and adults.

H BSE 6015. The verbal behavior model: Individual educational programming (3) Professor Greer. Prerequisites: H BSE 4015 and H BSE 4043. Students will master Skinner's model of communicative behavior, the associated literature, and major theoretical papers. Research and data-based schooling applications of the model will be made to pedagogy and curriculum.

H BSE 6070. Psychology of deafness (2)
Professor K retschmer. Permission required. Effects of deafness on intellectual and personality development. Social psychology of deafness. Implications for education.

H BSE 6400-H BSE 6413.
Advanced internships in special education.
Permission required. Post-master's level. Intensive in-service internship at agency chosen to meet individual student's needs. Students submit reports anal yzing experiences.

- H BSE 6400. General (1-6)

Faculty.

- HBSE 6401. Mental retarda-
tion and intellectual disability


## (1-6)

Professor Hickson.

- HBSE 6403. Physical disabilities (1-6)
Professor Mithaug or Dr. Stolarski.
- HBSE 6404. Behavioral disorders (1-6)
Professor Greer.
- HBSE 6406. Blindness and visual impairment (1-6)
Dr. Stolarski. (minimum two semesters, 3 points each term)
- HBSE 6407. Deaf and hard of hearing (1-6)
Professor K retschmer.
- HBSE 6409. Guidance, habilitation, and career education (1-6)
Professors Hickson and Mithaug.
- H BSE 6410. Policy and administration (1-2)
Dr. K elly. (4 credits for full-year continuous enrollment required).
- H BSE 6411. Teacher educa-
tion (1-6)
Dr. Stolarski.
- H BSE 6412. Research (1-6)

Professor Hickson.
HBSE 6500-HBSE 6510.

## Advanced seminars in special

 education.Permission required. For doctoral students in special education and related fields. Recent develop-
ments in theory and research as
rel ated to the special ization from psychological, educational, sociological, and/or medical sources.

- HBSE 6500. General (3) Faculty.
- H BSE 6501. Mental retardation and intellectual disability (1-3)
Professor H ickson.
- H BSE 6503. Physical disabilities (1-3)
Professor Mithaug or Dr. Stolarski.
- H BSE 6504. Behavioral disorders (3)
Professor Greer.
- HBSE 6506. Blindness and visual impairment (3)
Dr. Stolarski. (minimum two semesters, 3 points each term) - HBSE 6507. Deaf and hard of hearing (2)
Professor K retschmer.
- HBSE 6509. Guidance, habilitation, and career education (3)
Professor Hickson.
- HBSE 6510. Policy and
administration (3)
Professor Mithaug.
HBSE 7500. Dissertation seminar in special education (3)
Professor Hickson (Spring). Permission required. Only advanced doctoral students in special education programs are eligible. Prerequisites: H BSE 5010, H BSE 6001, and HBSE 6010. Development of doctoral dissertations and presen-
tation of plans for approval. Special fee: \$10.


## HBSE 8901-H BSE 8910. Disser-

## tation advisement in special

 education (0)Advisement on doctoral dissertations. Fee: 3 points at current tuition rate for each term. For requirements, see catal og on con-
tinuous registration for
Ed.D./Ph.D. degrees.

- HBSE 8901. Mental retarda tion and intellectual disability (1-3)
Professor Hickson.
- HBSE 8903. Physical disabilities (1-3)
- H BSE 8904. Behavioral disorders (1-3)
Professor Greer.
- H BSE 8906. Blindness and
visual impairment (1-3)
Dr. Stolarski.
- H BSE 8907. Deaf and hard
of hearing (1-3)
Professor K retschmer.
- HBSE 8910. Administration (1-3)
Professor Mithaug.


## HBS 5590. Introduction to

 behavior analysis for applied settings (3)Professor Greer. Prerequisites:
HBSE 4015 and HBSE 4043.
Introduction to applied research in education, medicine, and therapy which is characterized by absolute unit measurement, functional relationships between variables, experimentation, and individual subject designs. W riting skills are emphasized. Special fee: $\$ 5$.

HBS 6031. Single case experimental design for behavior analysis in education, therapy, and medicine (3)
Professor Greer. Permission required. Topics include inter-subject and intra-subject designs, repeated measurement, generality, relevant statistical techniques, direct and systematic replication, sel ection of group or single case designs.

## Program in the Teaching of American Sign

Language (ASL) as a
Foreign Language (Code: TEL)
Program Coordinators: Professor R obert E. K retschmer and Dr. Russell S. Rosen

## D egree Offered:

M aster of Arts (M.A.)

## Special Application Requi rements/I nformation:

The M.A. Program in the Teaching of American Sign Language has ongoing admissions, and applications are received and reviewed throughout the year. For financial assistance, preference is given to students who meet the priority deadline of J anuary 15.

In addition to general College admission requirements, the Program has two additional requirements: demonstrated proficiency in American Sign Language and an interview with the Program coordinators. Proficiency in ASL at the Inter-mediate-Plus Level is required for graduation; students need to bring documentation such as SCPI and ASLPI. Students who are not proficient in ASL at this level as measured by nationally-recognized assessments may need to take additional conversational ASL courses. An interview may be scheduled by contacting the Program coordinators.

A student in this program who wants to qualify for N ew Y ork State teaching certification must complete the program and file for certification prior to February 1, 2004. Teachers College is developing new programs to meet regulations that go into effect after February 1, 2004. These programs will be outlined in next year's catalog.

Program D escription:
The M.A. Program in the Teaching of A merican Sign Language (ASL) as a Foreign Language provides students with foundations in linguistics and applied linguistics; anthropology; sociolinguisitics; social and cognitive psychology; academic assessment, second language instructional design, curriculum devel opment, and assessment; and research methodology, as they pertain to the language, community, and culture of persons who are deaf and the hard of hearing.

ASL is a naturally developing language of deaf and many hard of hearing people in the United States, possessing a linguistic system with its own phonological, morphological, syntactic, and discourse structures that are distinct from English Ianguage. ASL users have developed a literary tradition in oratory, folklore, and performance art, all recorded either in print or in permanent media like film and video. The A merican deaf community of persons, groups, and organizations provides the basis for cultural identity and group cohesion for about one million deaf, hard-of-hearing and hearing individuals, who share a set of characteristics that bind them together, such as knowledge of ASL and traditions for social behavior.

ASL has been afforded the status of a foreign language, and it can be pedagogically approached with individuals unfamiliar with it in a manner similar to other foreign languages. Students in the program will be practiced in curriculum design and execution in general and the curriculum principles found in Modem Languages for Communication as a model.

Students will be prepared to become professionals who approach the profession of teaching ASL as a foreign lan-
guage in a highly scholarly manner and as a contextualized, investigatory, cultural, and problem-solving event with learners who typically have hearing, are in regular education programs and possess a wide range of cognitive, social, and academic abilities and diverse cultural backgrounds. They will be able to consume, apply, and generate research on the instructional process as presented formally within journals and texts on the teaching of ASL and other second languages, communication skills, deaf studies, curriculum design, and the cognitive, social and affective development of the learner.

## D egree Requi rements:

The M aster of A rts Program in the Teaching of A SL consists of a minimum of 40 credit points distributed in the following manner: 12 points of course work on professional foundations, 24 points of course work and practica experiences in the area of ASL and deaf studies, and 4 credits of electives. For students not proficient in ASL, they will be expected to take additional course work to devel op the necessary level of proficiency expected.

M .A. Practica are an integral part of the M.A. degree, and students spend anywhere from 6 to 15 hours per week in teaching time. The students will enroll in two semesters of student teaching and practica experience associated with course work. Students will participate in introductory field observations and student teaching for five days weekly for 12 weeks in each semester.

In addition, the students would need to identify pertinent issues of ASL teaching and/or deaf studies, embark on a review of literature, formulate research questions and hypotheses, conduct data collection and analysis, and pre-

Department of<br>Health and Behavior Studies

pare an M.A. Project. As for the final M aster's research paper, it will be completed during the final student teaching placement. The topics will be decided upon jointly by the student and the Program Coordinators, with input from the master cooperating teacher, and should arise out of some classroom concern.

Students who successfully complete the $M$ asters Program and met all of the require ments for state certification will be recommended to the New York State Education Department for a certification as a Teacher of A merican Sign Language. They will al so be able to obtain a national certificate from the A merican Sign Language Teachers A ssociation. Those individuals planning to teach in a state other than N ew York will be helped by the Teachers College Registrar and the Office of Teacher Education to explore certification requirements in and certification reciprocity rel ationships with other states.

## Courses required:

Foundation (12 credits)
Curriculum D esign (3):

- C\&TY 4052, Designing curriculum and instruction, or
- A\&HL 4021, Foundations of bilingual and bicultural education, or
- A\&HL 4127, Bilingualbicultural curriculum: Multilanguages

Pedagogy (3):

- C\&TY 4005, Principles of teaching and learning, or
- A\&HL 4049, Foreign language teaching: Styles and methods, or
- A\&HL 4076, TESOL methodologies for K-12

Learner C haracteristics (3):

- HBSK 4029, Theories of human cognition and learning, or
- H BSK 4020, Theories of human development, or
- HBSK 4022, Developmental psychology: Childhood, or
- H BSK 4023, Developmental psychology: A dol escence

A nthropol ogical F oundations (3):

- M STF 4003, American culture and education, or
- MST 5003, Communication and culture, or
- A\&HL 4021, Foundations of bilingual and bicultural education

Specialization (18 credits)
D eaf community and culture ( 6 ):

- HBSE 4070, Psychosocial and cultural aspects of individuals who are deaf or hard of hearing, I, II.
- H BSE 4075, Selected topics in ASL and deaf community and culture

L anguage and Communication ( 6 to 14 credits):

- HBSE 4079, Language development and habilitation: The foundations
- A \&H L 4087, Introduction to second language acquisition
- HBSE 4074, Linguistics of American Sign Language
(H BSE 4871-4. American Sign Language, I-IV*)

Curriculum and Instruction (4 credits):

- H BSE 4076, M ethods and materials in teaching ASL
- H BSE 4072, Teacher-asResearcher

A ssessment (2):

- H BSE 4307, Assessment in ASL and deaf studies, or
- A\&H L 4088, Second-Ianguage testing

Student Teaching/Practica (6 credits):
HBSE 4707, Observation and student teaching of A SL, I, II

E lectives (4 credits):

- MSTU 5183, Designing educational video, or
- A\&H L 4019, Orality, literacy and technology, or
- A\&H L 4050, The study of literature


## Courses:

Other courses in the Program are described el sewhere. The following are courses specific to the Program.

## H BSE 4075. Selected topics in ASL and deaf community and culture (2)

Dr. Rosen. Literary and artistic works on meaning of deafness, presentations and representations of deafness, A merican Sign Language, and deaf people in society by individuals who are deaf will be examined. Course studies on the complexities that deaf individuals face in experiencing, living and identifying with, and reflecting on deafness.

## H BSE 4076. Methods and materials in teaching A merican Sign Language and deaf community and culture (2)

Dr. R osen. Current theories and approaches in curriculum design and instructional methods in second language acquisition and the teaching and learning of American Sign Language and deaf community and culture will be discussed. Materials on American Sign Language and American deaf community and culture will be introduced. Students will develop curriculum and instructional methods to apply current approaches to classroom practice.

## H BSE 4307. Assessment of A merican Sign Language and deaf community and culture (2)

 Dr. R osen. M odels of assessment of A merican Sign Language and deaf community and culture will be discussed and evaluated. Students will select appropriate assessment procedures based on reasons for assessment and will construct a complete plan for assessment.Chair: Professor J ames E. Corter Location: 453 Grace D odge
Tel ephone N umber:
(212) 678-3882

Fax: (212) 678-3837

## Programs:

Cognitive Studies in Education
Developmental Psychology
M easurement, Eval uation, and
Statistics
Politics and Education
Sociology and Education

## Faculty:

## Professors:

J. Lawrence A ber (D evelopmental Psychology/N ational Center for Children in Poverty \{part-time\})
John B. Black (Cognitive Studies in Education/ Instructional Technology and Media)
Lois Bloom (D evelopmental Psychology)-Emeritus
J eanne Brooks-Gunn (D evelopmental Psychology)
R obert L. Crain (Politics and Education/Sociology and Education)- Emeritus
H erbert P. Ginsburg (D evelopmental Psychology/Cognitive Studies in Education)
Deanna K uhn (D evelopmental Psychology/Cognitive Studies in Education)
Gary N atriello (Sociology and Education)
A aron M. Pallas (Sociology and Education)
Ernst Z. Rothkopf (Cognitive Studies in Education/ Instructional Technology and Media)-Emeritus
J oanna P. W illiams (Cognitive Studies in Education)
Richard M. W olf (M easurement, Evaluation, and Statis-tics)-Emeritus

## Adjunct Professors:

Hugh F. Cline (Sociology and Education)
Alan R. Sadovnik (Sociology and Education)

## Associate Professors:

M adhabi Chatterji (M easurement, Eval uation, and Statistics)
James E. Corter (M easurement, Eval uation, and Statistics/ Cognitive Studies in Education)
Suniya S. Luthar (D evelopmental Psychology)
J ane A. M onroe (M easurement, Evaluation, and Statistics)

## Adjunct Associate Professors:

Judith Miller (Developmental Psychology)
Elizabeth C. Vozzola (D evelopmental Psychology)
Bruce L. Wilson (Sociology and Education)

## Assistant Professors:

Lawrence T. DeCarlo (M easurement, Evaluation, and Statistics/Cognitive Studies in Education)
Clea Fernandez (D evelopmental Psychology/Cognitive Studies in Education)

## Adjunct Assistant Professors:

Ivo Antoniazzi (M easurement, Evaluation, and Statistics)
M eryle M. K aplan (Developmental Psychology)
John N. Larson (Cognitive Studies in Education)
Laurie M iller-McN eill (Politics and Education)
Lucia F. O'Sullivam (Developmental Psychology)
DaleT. Snauwaert (Politics and Education)

For information about faculty and their scholarly and research interests, please refer to the "Faculty" section of the Catalog.

## Departmental Mission:

The Department of H uman Development is devoted to promoting an understanding of human development in families, schools and social institutions across the life span. The Department provides social sci-
entists and educators with theories, empirical methods and anal ytic tools for understanding and conducting research in human development and cognition, and for helping solve educational and social problems.

## Cognitive Studies in Education

Program Coordinator: Professor J ohn B. Black

Cognitive Studies in Education (Code: TKE)

## Degrees Offered:

M aster of Arts (M.A.)
Doctor of Education (Ed.D.) Doctor of Philosophy (Ph.D.)

Applied Educational Psychol-
ogy: Cognitive, Behavioral, and
Developmental A nalysis
(Code: TK F)

## Degree Offered:

M aster of Education (Ed.M.)

## Special Application Requirements/Information:

 GRE general test is required for admission to the doctoral programs.
## Program D escriptions:

In the Cognitive Studies in Education Program, students examine the cognitive mechanisms that underlie learning and thinking in school and non-school settings. The program trains students in basic theories of human cognition, the practice and interpretation of empirical cognitive and devel opmental research - and how to use research to improve educational practices and develop innovative methods built around new technologies. Studies in cognitive, developmental and educational psychology, and computer science provide students with a valuable perspective on cognition and learning.

The curriculum and program requirements are designed to prepare graduates for careers in several possible settings. For the M aster's programs, these settings include:

- school systems seeking instructional technology coordinators and teachers who are knowledgeable about cognitive and developmental theories and research
- publishers and software companies looking for people with knowledge of cognition and development, and experience in instructional design
- research organizations seeking people to conduct basic research and work on instructional applications of computers and related technologies.

For the doctoral programs, work settings after graduation might include: research organizations, or universities seeking faculty in cognitive psychology, educational psychology, educational technology, and reading.

Students in the Cognitive Studies in Education Program begin by taking a set of core background courses, then pursue one of five concentrations: cognition and learning, intelligent technologies, reading research, cognitive studies of educational practice, or psychology of training and performance support in the work place. Students beyond the M.A. level take more advanced courses, specifically including a statistics sequence.

In addition, each student registers for research practicum seminars during which they complete a substantive project as a culminating experience for that degree. Choice of advanced courses and research seminars should be shaped by the student's area of concentration, as described below. Students whose interests do not fit one
of these tracks may design their own concentration in consultation with their advisor.

## Concentration in Cognition and Learning:

The concentration in Cognition and Learning is designed for students interested in theories of human cognition and learning, and experimental approaches to learning, memory, language, reasoning, and problem solving. The culminating experience for master's students in this program is to conduct an empirical research study in the area of cognition or learning.

## Concentration in Intelligent Technologies:

The Intelligent Technologies concentration offers a program of study for students whose interests include developing cognitive science-based theoretical frameworks for informing the design of educational technology, as well as for students wishing to create educational applications that serve as testbeds for such theoretical frameworks.

By offering this concentration, the Program in Cognitive Studies recognizes the importance of computational and allied technologies to both guide and be guided by cognitive research. M any of the courses in this concentration are cross-listed with the Programs in Communication, Computing, and Instructional Technology (M STU ). A s a culminating experience, masters students in this concentration create and evaluate an educational technology application.

## Concentration in Reading Research:

This concentration prepares students to do basic research in reading, research and theory on all aspects of the psychology of
reading (e.g. basic skills, comprehension and aesthetic response) in order to improve educational practice. Students address the connections between written and oral Ianguage, and between reading and writing skills. Individual differences are al so addressed, especially with respect to students with learning disabilities, adult literacy, learning from text and educational policy issues. The culminating experience for masters students is an empirical study in the area of reading.

## Concentration in Cognitive Studies of Educational Practice:

This concentration is for students interested in understanding and facilitating the thinking and learning involved in educational activities. Students will learn about cognitive processes involved in both formal and informal education and how they are influenced by various factors, including classroom structure, teacher belief systems, student motivation, and educational policy. The program's focus on understanding cognitive processes and development is designed to help prospective and practicing teachers, and other educators, improve educational practice. The culminating experience for masters students is an empirical study of cognition in a classroom setting.

## Concentration in Psychology of Training and Performance Support in the Work Place:

This concentration prepares students for careers of research and development in training and other related work in business and industry. Students study psychological fundamentals, statistical tools, and instructional technology. Emphasis is on thorough scientific and practical grounding for 1) the design, development, eval uation, and management of
instructional programs in industrial and business settings, and/or 2) the development and evaluation of jobrelated documents, manuals and computer programs for use in practical settings. As a culminating experience, masters students will create and evaluate a set of training materials or a performance support system, or conduct a related research study.

## D egree Requirements:

## M aster of Arts-32 points

(Code: TK E)
C oreCourses (9 points):

- HUDK 4029, H uman cognition and learning
- HUDK 4080, Educational psychology
- HUDK 5023, Cognitive development

Statistics/R esearch Design
(3 points):
At least one of the following:

- HUDM 4120, Basic concepts in statistics
- HUDM 4122, Probability and statistical inference
- HUDM 5122, A pplied regression anal ysis
- HUDM 5123, Linear models and experimental design
- HUD 4120, M ethods of empirical research

Research (3 points):

- HUDK 5324, Research work practicum or, by permission, a 6000-level research work practicum

B readth Requirement
(4-6 points):
At least two of the following:

- A\&H L 4000, Study of Ianguage
- A\&H F 4081, Philosophies of education
- M STU 4008, Information technology and education
- MSTU 4036, H ypermedia and education
- MSTU 4133, Cognition and computers
- M STF 4010, Social context of education
- ORLJ 4005, Organizational psychology
- HBSK 4075, Brain and behavior
- BBSQ 4040, Speech and Ianguage disorders

Specialized C ourses
(11-13 points):
Selected in consultation with an advisor, and focusing on one of the following concentrations:
Cognition and Learning:

- HUDK 5034, Research methods for cognition and learning
- HUDK 4015, Psychology of thinking
- HUDK 4027, D evelopment of mathematical thinking
- HUDK 5091, Applied psycholinguistics
- HUDK 5024, Language devel opment
- HUDM 5058, Choice and decision making
- HUDK 6620, Special topics in developmental psychology
- HBSK 5096, Psychology of memory

Intelligent Technologies:

- HUDK 4035, Technology and human development
- HUDK 5039, Design of intelligent learning environments
- HUDK 5198, Psychology of instructional systems design
- HUDK 6620, Special topics in developmental psychology
- M STU 4133, Cognition and computers
- M STU 4083, Instructional design of educational technology

Reading Research:

- HUDK 4010, Psychology of reading
- HUDK 5024, Language devel opment
- HUDK 5080, Experimental psychology of schooling and reading
- HUDK 5091, Applied psycholinguistics
- HUDK 6620, Special topics in developmental psychology
- HUDK 5090, Psychology of language and reading
- HUDK 6095, Critical review of current journals in psychology
- H BSK 5099, Theories of cognitive processes in writing

Cognitive Studies of
Educational Practice:

- HUDK 4035, Technology and human development
- HUDK 4074, Reading comprehension strategies and study skills
- HUDK 4127, Developmental psychology for educa tional reform
- HUDK 5097, Psychology of instruction
- HUDK 6620, Special topics in developmental psychology
- HUDF 4021, Sociology of education
- HUDM 5055, Evaluation of institutions, programs, and curricula

Training and Performance in the W orkplace:

- HUDK 4035, Technology and human development
- HUDK 5039, Design of intelligent learning environments
- HUDK 5198, Psychology of instructional systems design
- HUDK 6620, Special topics in developmental psychology
- HUDF 5020, M ethods of social research: Survey methods
- HUDM 5055, Evaluation of institutions, programs, and curricula
- MSTU 4133, Cognition and computers
- MSTU 5030, Intelligent computer assisted instruction
$N$ ote: At least 2 courses (minimum of 4 points) must be taken outside the department.

Integrative Project: Varies according to selected concentration: Cognition and Learning - an empirical cognitive
research study; Intelligent Technologies- creation and evaluation of an educational technology program; Reading Research- an empirical reading research paper; Cognitive Studies of Educational Prac-tice- an empirical study of cognition in a classroom setting; and Training and Performance in the W orkplace - cre ation and evaluation of a set of training materials or performance support system, or a related research study.

## Master of Education-60 points

(Code: TK F)
C ore Courses (9 points):

- HUDK 4029, H uman cognition and learning
- HUDK 4080, Educational psychology
- HUDK 5023, Cognitive development

Statistics/Research D esign
(12+ points):

- HUDM 4120, B asic concepts in statistics (if no undergraduate statistics)
- HUDM 4122, Probability and statistical inference
- HUDM 5122, A pplied regression analysis
- H UD 4120, Methods of empirical research
- HUDM 5059, Psychological measurement

Research (6 points):

- HUDK 5324, Research work practicum or, by permission, a 6000-level research work practicum.

Breadth R equirement (6 points):
At least two of the following:

- A\&HL 4000, Study of language
- A\&HF 4081, Philosophies of education
- M STU 4008, Information technology and education
- MSTU 4036, H ypermedia and education
- M STU 4133, Cognition and computers
- M STF 4010, Social context of education
- OR LJ 4005, Organizational psychology
- HBSK 4075, Brain and behavior
- BBSQ 4040, Speech and language disorders

Specialized Courses (33-36 points): Selected in consulta tion with an advisor, and focusing on one of the following concentrations:

Cognition and Learning:

- HUDK 5034, Research methods for cognition and learning
- HUDK 4015, Psychology of thinking
- HUDK 4027, Development of mathematical thinking
- HUDK 5024, Language development
- HUDM 5058, Choice and decision making
- HUDK 5091, Applied psycholinguistics
- HBSK 5096, Psychology of memory
- HUDK 6620, Special topics in developmental psychology

Intelligent Technologies:

- HUDK 4035, Technology and human development
- HUDK 5039, Design of intelligent learning environments
- HUDK 5198, Psychology of instructional systems design
- HUDK 6620, Special topics in developmental psychology
- MSTU 4133, Cognition and computers
- M STU 4083, Instructional design of educational technology

Reading Research:

- HUDK 4010, Psychology of reading
- HUDK 5024, Language development
- HUDK 5080, Experimental psychology of schooling and reading
- HUDK 5090, Psychology of language and reading
- HUDK 5091, A pplied psycholinguistics
- HUDK 6095, Critical review of current journal s in psychology
- HUDK 6620, Special topics in developmental psychology
- HBSK 5099, Theories of cognitive processes in writing

Cognitive Studies of
Educational Practice:

- HUDK 4035, Technology and human development
- HUDK 4074, Reading comprehension strategies and study skills
- HUDK 4127, Developmental psychology for educa tional reform
- HUDK 5097, Psychology of instruction
- HUDK 6620, Special topics in developmental psychology
- HUDF 4021, Sociology of education
- HUDM 5055, Evaluation of institutions, programs, and curricula

Training and Performance in the W orkplace:

- HUDK 4035, Technology and human development
- HUDK 5039, Design of intelligent learning environments
- HUDK 5198, Psychology of instructional systems design
- HUDK 6620, Special topics in developmental psychology
- HUDF 5020, M ethods of social research: survey methods
- HUDM 5055, Evaluation of institutions, programs, and curricula
- MSTU 4133, Cognition and computers
- MSTU 5030, Intelligent computer assisted instruction
$N$ ote: At least 2 courses (minimum of 4 points) must be taken outside the department.

Integrati ve P roject: Varies according to selected concentration: Cognition and Learning - an
empirical cognitive research study; Intelligent Technolo-gies- creation and evaluation of an educational technology program; R eading Research - an empirical reading research paper; Cognitive Studies of Educational Practice- an empirical study of cognition in a classroom setting; and Training and Performance in the W orkplace-creation and evaluation of a set of training materials or performance support system, or a related research study.

## Doctor of Philosophy-75 points

(Code: TKE)
G eneral Psychology (12 points):
One course each in 4 of the following areas:

1. D evel opment:

- HUDK 5022, Emotional devel opment
- HUDK 5023, Cognitive devel opment
- HUDK 5024, Language devel opment
- HUDK 5029, Personality development and socializa tion across the life span

2. Personality:

- CCPX 5032, Personality and psychopathology
- CCPX 5034, Developmental psychopathology
- G 4003, Personality

3. Social Bases of Behavior:

- ORLJ 5540, Proseminar in social psychology
- G 4006, Social psychology

4. M easurement:

- HUDM 5059, Psychological measurement

5. Biological Bases of Behavior:

- HBSK 4075, Brain and behavior
- HBSK 5068, Introduction to neuropsychology
- HBSK 5070, N eural bases of language and cognitive devel opment
- BBSQ 4043, H uman nervous system
- G 4004, Physiological psychology

Statistical and Research M ehodology (15 points):

- HUDM 4122, Probability and statistical inference
- HUDM 5059, Psychological measurement
- HUDM 5122, A pplied regression analysis
- HUDM 5123, Linear models and experimental design
- HUDM 6122, Multivariate analysis I

C ore Courses (minimum of 18 points):
At least 6 of the following:

- HUDK 4015, Psychology of thinking
- HUDK 4027, Development of mathematical thinking
- HUDK 4029, H uman cognition and learning
- HUDK 4080, Educational psychology
- HUDK 5023, Cognitive development
- HUDK 5034, Research methods and applications for cognition and learning
- HUDK 5197, Psychology of training in business and industry
- HUDK 5198, Psychology of instructional systems design
- HUDK 6095, Critical review of current journal s in
psychology
- HUDK 5090, Psychology of language and reading
- MSTU 4133, Cognition and computers

Research A pprenticeship
(6 points):
Two semesters in a research practicum:

- HUDK 6529, Research practicum in cognitive development
- HUDK 6539, Research practicum in educational psychology, cognition, and learning
- HUDK 6592, Advanced research seminar: learning and instruction
- HUDK 6598, Advanced research seminar: instructional theory

Special Seminars (minimum of 9 points):

- HUDK 6620, Special topics in developmental psychology (taken during both first and second years
- HUDK 7502, Dissertation seminar

N on-departmental Courses (minimum of 8 points):
At least 3 courses outside the department are selected in consultation with an advisor.

A dditional Requirements: Two papers, one in theory and application, another in empirical research; certification examination; and an approved dissertation.

## Doctor of Education-90 points

(Code: TK E)
G eneral P sychology (12 points):
One course each in 4 of the following areas:

1. Development:

- HUDK 5022, Emotional devel opment
- HUDK 5023, Cognitive devel opment
- HUDK 5024, Language devel opment
- HUDK 5029, Personality development and socializa tion across the life span

2. Personality:

- CCPX 5032, Personality and psychopathology
- CCPX 5034, D evelopmental psychopathology
- G 4003, Personality

3. Social Bases of Behavior:

- ORLJ 5540, Proseminar in social psychology
- G 4006, Social psychology

4. M easurement:

- HUDM 5059, Psychological measurement

5. Biological Bases of Behavior:

- HBSK 4075, Brain and behavior
- HBSK 5068, Introduction to neuropsychology
- HBSK 5070, N eural bases of language and cognitive development
- BBSQ 4043, H uman nervous system
- G 4004, Physiological psychology

Statistical and Reeearch M ethodology (15 points):

- HUDM 4122, Probability and statistical inference
- HUDM 5059, Psychological measurement
- HUDM 5122, Applied regression analysis
- HUDM 5123, Linear models and experimental design
- HUDM 6122, Multivariate analysis।

C oreCourses (minimum of
24 points):
At least 8 of the following:

- HUDK 4015, Psychology of thinking
- HUDK 4027, Development of mathematical thinking
- HUDK 4029, H uman cognition and learning
- HUDK 4080, Educational psychology
- HUDK 5023, Cognitive devel opment
- HUDK 5034, Research methods for cognition and learning
- HUDK 5090, Psychology of language and reading
- HUDK 5197, Psychology of training in business and industry
- HUDK 5198, Psychology of instructional systems design
- HUDK 6095, Critical review of current journal s in psychology
- MSTU 4133, Cognition and computers

Research A pprenticeship
(6 points):
Two semesters in a research practicum

- HUDK 6529, Research practicum in cognitive development
- HUDK 6539, Research practicum in educational psychology, cognition, and learning
- HUDK 6592, Advanced research seminar: Learning and instruction
- HUDK 6598, Advanced research seminar: Instructional theory

Special Seminars (minimum of 9 points):

- HUDK 6620, Special topics in developmental psychology (taken during both first and second years)
- HUDK 7502, Dissertation seminar

N on-departmental Courses (minimum of 8 points):
At least 3 courses outside the department are selected in consultation with an advisor.

A dditional Requirements: Two papers, one in theory and application, and one in empirical research; certification examination; and an approved dissertation.

## Courses:

## Basic and General Courses

HUDK 4010. Psychology of reading (3)
Professor Williams. Exploration of theoretical models and critical empirical issues pertaining to those language processes inherent in reading and in writing. A nalysis of instructional strategies in terms of cognitive models.

## HUDK 4015. Psychology of thinking (3)

Professor Black. Examines cognitive psychology theories and research about various kinds of thinking, what each kind is best suited for, and problems people have with it. Also examines the best ways of learning from each kind of thinking. Critically examines the various thinking skills curricula that have been proposed.

## HUDK 4027. D evelopment of mathematical thinking (3)

Professor Ginsburg. The development of informal and formal math-
ematical thinking from infancy through childhood with implications for education.

## HUDK 4029. Human cognition

 and learning (3)Professor Black. Cognitive and information-processing approaches to attention, learning, language, memory, and reasoning.

## HUDK 4035. Technology and human development (3)

 Professor Black. Examines the use and design of various educational technologies (computer software, multimedia shareware, TV, W orld Wide W eb sites, etc.) from the perspective of basic research and theory in human cognitive and social devel opment. Provides a framework for reasoning about the most developmentally-appropriate uses of technology for people at different ages.HUDK 4080. Educational psychology (3)
Professor W illiams. Examines landmark issues in educational psychology, highlighting philosophical underpinnings and empirical evidence, tracing each issue from its roots to contemporary debates and evaluating current educational practice.

HUDK 5020. Development of creativity (2-3)
Faculty. M ajor theories and contemporary research in creative work, emphasizing case studies of exceptional and historically influential individuals.

## HUDK 5023. Cognitive devel-

 opment (3)Professor K uhn. Theory and research on the development of cognitive processes across the life span.

HUDK 5034. Research methods for cognition and learning (3) Professor Black. Prerequisite: H U DK 4029 or equivalent. Introduction to techniques in psychological investigations of learning, language, memory and thought, psychological anal ysis of instruction and other practical problems.

HUDK 5039. Design of intelligent learning environments (3) Faculty. Prerequisite: MSTU 4083 or permission of instructor. Covers ideas about representation of
knowledge, models of the learner, and teaching strategies that have been developed in artificial intelligence and cognitive psychol ogy. Students have the opportunity to design and implement intelligent computer-assisted instruction materials. Special fee: $\$ 50$.

HUDK 5090. Psychology of language and reading (2-3)
Professor Williams. Basic theories, empirical findings, and educational applications in the psychology of language and reading: the cognitive processes involved in the perception and production of oral and written language.

## HUDK 5091. Applied psycholinguistics (3)

Professor Williams. Permission required. Prerequisite: H UDK 5090 or equivalent. Guided research in psycholinguistics with emphasis on studies relating Ianguage to cognitive processes, school learning, and social processes.

## HUDK 6095. Critical review of current journals in psychology

 (3)Professor Williams. Limited to candidates in psychology; others by permission. Critical review of current journals in psychology and education, anal ysis of articles, discussion of general trends in current theoretical and research literature, and guidance in preparing manuscripts for publication in peerreviewed journals.

## HBSK 5096. The psychology of memory (3)

Professor Peverly. An anal ysis of perspectives on human memory with particular attention to knowledge, attention, strategic processes, metacognition, transfer, and context. The application of this information to practice is stressed.

## M STU 4133-4134. Cognition and computers

Professor Black. Ideas about cognition and knowledge representation and how they relate to the use of computers in instruction. The student selects a subject area, learns to represent knowledge from it so that it can be implemented in a computerized instructional system, and uses the knowledge representation to characterize the cognitive
prerequisites and consequences of learning to use computers.
MSTU 4133. Cognition and
computers (3) Special fee: $\$ 25$.
MSTU 4134. Cognition and
computers lab (1-3)
Permission required. Corequisite:
MSTU 4133. Special fee: $\$ 25$.

## Advanced and <br> Specialized Courses

HUD 4120. Methods of empirical research (3)
Faculty. An introduction to the research methods that have been employed by cognitive and developmental psychologists, as well as an overview of how these methods have been applied and the kinds of knowledge they have yielded.

## HUDK 5024. Language devel-

 opment (2-3)Faculty. Survey of research and theory in the development of language, beginning with communication and the origins of language in infancy and emphasizing acquisition of the forms of language in relation to their content and use.

HUDK 5080. Experimental psychology of schooling and reading (2-3)
Professor W illiams. Permission required. Open only to doctoral students in psychology. Critical evaluation of experimental investigations of cognitive processes and school-related problems.

## HUDK 5197. Psychology of

 training in business and industry (3)Faculty. The design, conduct, and evaluation of training in closed systems. A critical review of available methods for task anal ysis, formative development, and the creation of performance aids. Special fee: $\$ 15$.

## HUDK 5198. Psychology of

 instructional systems design (2-3)Dr. Larson. Enrollment limited. Systematic approaches to instructional design in schools and corporate settings. Theoretical and empirical bases. Analysis of casebased examples. Materials fee: $\$ 25$.

# Department of <br> Human Development 

HUDK 5324. Research work practicum (1-3)
Faculty. Students learn research skills by participating actively in an ongoing faculty research project.

## HUDK 6522. Seminar in cogni-

 tive processes (3)Faculty. Permission required. Advanced discussion of topics in cognitive psychology and their implications for instruction.

HUDK 6523. Seminar in cognitive development (1-3)
Professor K uhn. Permission required. Advanced topics in research and theory in cognitive development.

HUDK 6530. Seminar in theoretical issues in cognitive and educational psychology (1-3) Faculty. Permission required. Limited to doctoral candidates in psychology.

HUDK 6539. Research practicum in educational psychology, cognition, and learning (1-3)
Faculty. Permission required.
Limited to doctoral candidates in psychology.

HUDK 6592. Advanced research seminar: Learning and instruction (3)
Faculty. Permission required. Limited to doctoral candidates only. Review and discussion of advanced topics in learning, memory, and cognition, and their relationship to educational issues and problems. This course may be repeated.

HUDK 6595. Seminar in language and reading (3)
Professor Williams. Permission required. A nal ysis of current research and theory in the study of language and reading.

HUDK 6598. Advanced research seminar: instructional theory (2-3)
Faculty. Permission required. Limited to doctoral candidates. Advanced topics in the systematic management of instruction, the development of instructional materials and devices, and their relationship to learning, memory, and cognition.

HUDK 6630. Special topics in cognitive or educational psychology (3)
Faculty. Permission required. Topics to be announced.

HUDM 5058. Choice and decision making (3)
Professor Corter. Prerequisite: HUDM 4122 or equivalent. Surveys quantitative models of individual decision making, from the introduction of the notion of "utility" by Daniel Bernoulli through current models such as Tversky and $K$ ahneman's "Prospect Theory." The focus is on psychological or descriptive models of how people make decisions, although methods of rational decision analysis are briefly discussed.

HBSK 4074. Reading comprehension strategies and study skills (2-3)
Professor Peverly. Reading and study skills: Practical procedures based on research findings appropriate for teachers, counselors, and others. For students at late el ementary levels through young adulthood. M aterial s fee: $\$ 25$.

## H BSK 4077. Adult basic literacy

 (2-3)Faculty. Psychological and educational aspects of adult basic literacy for teachers, counselors, and others who work with adults deficient in basic reading and writing skills.

Independent Study and Research
Students may register for intensive individual study of a topic of special interest. Registration in independent study is by permission of the instructor under whose guidance the work will be undertaken. Credit may range from 1 to 3 points each term except for HUDK 8901 (Dissertation Advisement); and registration is not limited to one term. H ours for individual conferences are to be arranged.

> HUDK 4902. Research and independent study (1-3)

HUDK 6902. Advanced research and independent study (1-3)

H UDK 7502. Dissertation seminar (1-3)
Permission required. Development of doctoral dissertation and presentation of plans for approval. Registration limited to two terms.

## HUDK 8901. Dissertation

advisement (0)
Individual advisement on doctoral dissertation. Fee to equal 3 points at current tuition rate for each term. See catal og section on Continuous Registration for Ed.D./Ph.D. degrees.

## See also:

Program in Applied Linguistics:

- A\&H 4000. Study of language (2-3)

Program in School Psychology:

- HBSK 4074. Reading comprehension strategies and study skills (2-3)
- HBSK 4077. Adult basic literacy (2-3)
- HBSK 5096. The psychology of memory (3)

Program in Instructional Technology \& M edia:

- M STU 4008. Information technology and education (3)
- MSTU 4019. Social cognition and communication (3)
- MSTU 4080. Television and video applications in education (3)
- M STU 4083. I nstructional design of educational technology (3)
- MSTU 4085. N ew technologies for learning (2-3)
- MSTU 5030. Intelligent computer-assisted instruction (3)
- MSTU 5183. D esigning educational video (3)
- MSTU 5190. Preproduction of educational video programs (3)
- MSTU 5191-5192. Educational video production I and II (3-4)
- MSTU 5193. D esign and evaluation of experimental education video (2-3)
- MSTU 5194. Models of interactive learning (3-4)
- MSTU 6030. Software evaluation (3)

Psychology:
Developmental
(Code: TKA)
Program Coordinator: Professor
Suniya S. Luthar

## D egree Offered:

M aster of Arts (M.A.)

## Spedial Application

Requirements/I Information:
A pplicants who have undergraduate degrees in fields other than psychology will be considered for admission to the M.A. program, as well as those whose previous training is in psychology.

## Program D escription:

The $M$ aster of $A$ rts in devel opmental psychology typically requires completion of 32 points, normally achieved in 12 months of full-time study or proportionately longer for parttime study.

In accordance with individual interests and objectives, students acquire familiarity with basic theoretical and research orientations as well as exposure to substantive knowledge in the areas of cognitive, language, personality and social functioning and development. Opportunity exists for the study of deviant as well as normal psychological functioning within a developmental framework.

Students may register for independent study in order to undertake theoretical or empirical research projects or fieldwork. Students whose goal is to acquire professional skills in clinical or counseling psychology may enroll in introductory course offerings, which in many cases can be applicable if the student is later admitted to one of the more advanced master's or doctoral programs in these areas.

In order to accommodate the diverse aims of individual students, a considerable degree of flexibility has been built into the course of study leading to the M.A. degree. An attempt has been made to minimize specific course requirements, and the student will find that there is a good deal of freedom to choose from among the many offerings provided by Teachers College and the Columbia University G raduate faculties. In consultation with an advisor, students may create an individually tailored program of study, or may enter a concentration in Devel opmental Studies for Educators, or Risk, Resilience, and Prevention.

The course of study has three main components:

- A basic course in methods of research.
- Required courses in cognitive devel opment, personality development in atypical populations, and developmental psychology and education.
- Electives in developmental psychology plus relevant electives offered by other Teachers College and Columbia U niversity programs.

Students completing the M.A. degree accept positions in research laboratories or field settings, in biomedical institutions, in educational, community, and child care agencies, and as instructors in community colleges, or go on to pursue more advanced degrees in particular areas of specialization.

## D egree Requirements:

## M aster of Arts

32 points and a special project.
B asic C ourses (12 points):

- HUD 4120, M ethods of empirical research
- HUDK 5023, Cognitive development
- HUDK 5121, Personality development and socialization in early childhood

And either of the following:

- HUDK 5040, Development and psychopathology: Atypical contexts and populations
- HUDK 4127, Developmental psychology for educational reform

Elective Courses (minimum of 6 points):
At least 3 other psychology courses (2 or 3 points each), 2 or 3 of which must be in developmental psychology.

Breadth Requirement (minimum of 6 points):
Three courses taken for either 2 or 3 points each, including:

- H UDM 4120, Basic concepts in statistics, or equivalent; and at least 2 courses in programs at Teachers College other than Developmental Psychology.

Research Requirement (3 points): - HUDK 5324, Research work practicum.

Concentrations: W ithin the constraints described above, the student may design a program of study in coordination with an advisor, or concentrate in Risk, Resilience, and Prevention (in collaboration with the programs in Clinical Psychology and School Psychology); D evdopmental Studies for E ducators (in collaboration with the programs in Cognitive Studies in Education and Curriculum and Teaching).

## Developmental <br> Psychology

(Code: TK D)
Program Coordinator: Professor
Suniya Luthar

## D egree Offered:

D octor of Philosophy (Ph.D.)

## Special Application Requirements/Information:

This program accepts applications for fall semester only. GRE is required; Subject Test in Psychology is optional. Admission to the program is highly competitive. Primary emphasis in evaluating applicants is given to prior achievements and recommendations, particularly as evidence of a self-motivated research involvement.

Previous work in psychology is highly desi rable but there are no fixed course requirements. Expertise in a rel ated field, such as linguistics, philosophy, anthropology or biology, may qualify a student as well. At least one year of full-time study in residence, i.e., two semesters of 12 or more credits per semester, is required.

## Program D escription:

The 75-point doctoral degree prepares students for faculty positions in colleges and universities, and for positions as associates and consultants in research laboratories, biomedical schools, and other applied settings. Throughout their program, doctoral candidates work in a close apprentice relationship with a faculty advisor of their choice. The Ph.D. degree requires completion of 75 points with an empirical research thesis.

The aim of instruction at the doctoral level is to produce a psychologist who can makea sound and innovative research contribution to the study of human development, who is
concerned with the relationship between development and education, and who is equipped to teach about such matters. Students acquire the conceptual background and methodological skills necessary for faculty positions in colleges and universities, or for positions as associates and consultants in research laboratories, biomedical schools and other applied settings.

W hile consultation between student and faculty advisor is considered to be the best way to decide which steps should be taken towards these goals, there are specific requirements for all students in Developmental Psychology which serve to define the character of the program, and to ensure that all students have a common experience and acquire a common level of expertise in dealing with the core issues in the field.

The courses offered through the program provide content in the research and theoretical literature relating to all phases of the psychology of human development. All age groups are covered, from infancy through childhood, adolescence to adulthood, and later life. Course work in developmental psychology can be supplemented by courses in the other psychology programs at Teachers College as well as by courses in the social sciences, linguistics, and other fields offered at Teachers College and by the graduate faculty of the University (including the Columbia U niversity College of Physicians and Surgeons).

The doctoral program is focused primarily on training in the conduct of empirical (e.g., experimental, observational, and interview) research. Other types of research (theoretical, descriptive, and historical) may be undertaken in special circumstances of student and advisor competence.

## D egree Requirements:

The 75 -point course of study has four components:

- General Psychology. Students choose four courses, with at least one chosen from four of the following areas: Learning and Cognition, Personality, Social Bases of Behavior, $M$ easurement, and Biological Bases of Behavior.
- Doctoral Requirements. Students are required to take advanced courses in developmental psychology as well as proseminar.
- Methodology. All students are required to at least take the one-year statistics sequence (P robability and statistical inference and A pplied regressi on analysis), ordinarily in thefirst year. Students are required to take a special certification examination in methodology. Students, in consultation with their advisor, should al so enroll in the necessary advanced course work to prepare for both the research methods component of the certification examination and their own research work.
- Qualifying Paper. Students are required to write a theoretical and empirical paper to qual ify for dissertation status.

First Year of Study: Three of the following four required courses in devel opmental psychol-ogy-HUD 4120, M ethods of empirical research; H U DK 5023, Cognitive devel opment; HUDK 5029, Personality development and socialization across the life span; and HUDK 5040, Development and psychopathology: A typical contexts and populations. Two courses in statistics- H UDM 4122, Probability and statistical inference; and HUDM, A pplied regression analysis. A research seminar, HUDK 6620, Special topics in developmental psychology (two semesters). One course in any one of the following breadth areas, determined in consulta-
tion with an advisor: Biological basis of behavior; cognitive basis of behavior; socio-cultural factors and individual differences; and measurement.

Second Year of Study: Completion of the fourth required developmental psychology courses. A statistics course, HUDM 5123, Linear models and experimental design. Continued enrollment in HUDK 6620, Special topics in developmental psychology (two semesters). O ne course in each of the remaining three areas of the breadth requirement, determined in consultation with an advisor. Other requirements include an approved empirical paper (concomitant with enrollment in HUDK 6901, Advanced research and independent study in developmental psychology); service as a teaching assistant for two mas-ters-level developmental psychology courses, and supervisor of two-to-five master's student's special projects.

Third Year of Study: Two statistics courses- HUDM 6122, M ultivariate analysis I; and HUDM 6123, Multivariate anal ysis II. Other requirements include an approved theoretical paper (concomitant with enrollment in HUDK 6901, Advanced research and independent study in developmental psychology); and the Certification Exam. A fter meeting certification requirements, 15 points (which may be completed during the third and fourth years) are taken in consultation with an advisor.

F ourth $Y$ ear of Study: Completion of the 15 points begun in third year. H U DK 7501, Dissertation seminar in developmental psychology. Dissertation proposal due in the fall.

Culminating Experience An approved doctoral dissertation.

## Courses:

## H UD 4120. Methods of empirical research (3)

Faculty. An introduction to the methods of scientific inquiry, research planning, and techniques of making observations and analyzing and presenting data. Topics include: methods of inquiry, the rol e of research in theory, formulating problems and hypotheses, sampling, measurement, and the design of empirical research. O pportunity to design research projects.

## HUDK 4021. Developmental

 psychology: infancy (2-3)Faculty. Review of research and theory in early perceptual, cognitive, and social/emotional development, with particular attention to the interaction of biological and environmental factors in early life.

## HUDK 4022. Developmental psychology: childhood (2-3)

 Faculty. Children's cognition, perception, representation, language, affect, personality, and sexuality. Family structure and school as they influence these aspects of childhood.
## HUDK 4023. Developmental

 psychology: adolescence (2-3)Faculty. Theoretical and empirical studies of personality and social devel opment processes in adolescence. An ecological systems approach is emphasized.

## HUDK 4024. Developmental

 psychology: adulthood and the life span (2-3)Faculty. Theories of adult development, with an emphasis on the historical transformation of adult roles, and the significance of marriage, family, child rearing, work and social class in adulthood socialization.

HUDK 4027. The development of mathematical thinking (3) Professor Ginsburg. The development of informal and formal math ematical thinking from infancy through childhood with implications for education.

HUDK 4030. Cognitive clinical interview (3)
Professor Ginsburg. Introduction to the cognitive clinical interview and exploration of how it has and can be used in psychological and educational research and assessment.

HUDK 4045. Cross-cultural psychology of teaching and learning: an in-depth look at Japan (2-3)
Professor Fernandez. Explores the value of cross-cultural comparisons for thinking about teaching and learning. A case study approach is used to examine work comparing education in J apan and the US.

## HUDK 4120. The empirical

 study of human development (3)Professor Fernandez. An introduction to the research methods that have been employed by cognitive and developmental psychologists, as well as an overview of how these methods have been applied and the kinds of knowledge they have yielded.

## HUDK 4127. Developmental psychology for educational

 reform (3)Professor Ginsburg. Attempts to utilize developmental theories and research in the improvement of education are examined critically.

## HUDK 4620. Departmental col-

 loquium (2-3)Presentation and discussion of research topics by faculty, visiting psychologists, and students.

## HUDK 4820. Education for thinking: goals and methods for the middle school (1)

Professor K uhn. Identifies and examines skills of argument, analysis, and inference that are central to critical thinking, reviews research on how they develop with practice during late childhood and early adolescent years, and illustrates methods that support their devel opment, suitable for use in classrooms from middle elementary through junior high school years.

HUDK 5020. The development of creativity (2-3)
Faculty. Permission required. Major theories and contemporary research in creative work, emphasizing case studies of exceptional and historically influential individuals.

HUDK 5022. Emotional development (2-3)
Faculty. Theory and research in the development of emotional experience and expression.

HUDK 5023. Cognitive development (3)
Professor K uhn. Theory and research on the development of cognitive processes across the life span.

HUDK 5024. Language development (2-3)
Faculty. Survey of research and theory in the development of Ianguage, beginning with communication and the origins of language in infancy and emphasizing acquisition of the forms of language in relation to their content and use.

HUDK 5027. Moral development (2-3)
Faculty. Prerequisite: H UDK 4020, HUDK 4023, HUDK 4024, or equival ent. Investigation of the major theoretical and empirical approaches to the study of how morality develops with particular emphasis on the behaviorist, cognitive, psychoanalytic, and sociopolitical approaches.

HUDK 5029. Personality development and socialization across the life span (2-3)
Faculty. Theory and research regarding the interaction between naturally developing personal ity structures and socialization processes throughout life.

HUDK 5036. Child and adolescent development and social policy (2-3)
Professor Brooks-Gunn. This course provides a foundation of knowledge concerning the role of child and adolescent development perspectives in informing social policy. Students will investigate policy issues related to: poverty, families, child care, and education.

HUDK 5040. Development and psychopathology: atypical contexts and populations (3) Professor Luthar. Using contemporary research as the basis, the focus is on the interface between classical developmental psychology the ories and patterns of development identified in atypical contexts (e.g., poverty) and among atypical populations (e.g., resilient youth). Implications for interventions and policy are al so discussed.

HUDK 5092. Sociocultural factors in psychological development (3)
Faculty. This course examines the impact of ethnic culture, religion, economics, education, and gender and sexuality on the process of psychological development.

HUDK 5121. Personality development and socialization in childhood (2-3)
Professor Brooks-Gunn. Prerequisite: HUDK 4020 or equivalent. Contemporary theory and research on children's adaptation to developmental tasks of childhood. Comparison of typical and atypical pathways in social-personal ity development. A nalysis of the logic and method of empirical studies of development.

## HUDK 5123. Psychological development of women (3)

 Faculty. Theoretical and empirical issues concerning women's psychosocial development, viewed in the context of modern feminist thought.
## HUDK 5125. Cross-cultural

 developmental psychology (2-3) Professor Fernandez. Survey of psychological studies of development in different cultures, with emphasis on perceptual and cognitive issues and methodological problems specific to cross-cultural research.
## HUDK 5128. Social-cognitive

 development (2-3)Faculty. Permission required. Developmental theory and research on the relation between individual consciousness and the symbolic order of society. Topics include: the "self" the "other", intersubjectivity, social perception, communication, metaphor, myth, stories, and media images.

HUDK 5130-HUDK 5131. Community research practicum (3 each)
Faculty. Supervised experience in various types of community agencies (i.e., schools, hospitals, clinics) with a focus on developing research skills. Integration of theoretical and observational knowledge will be stressed. Open to degree candidates in D evelopmental Psychology.

H UDK 5523. Seminar in adolescent development and developmental problems (3)
Professor Luthar. Permission required. Prerequisite: HUDK 4023. Seminar designed to examine theory, research, and practice perspectives related to social and emotional domains during the period of adolescence.

## HUDK 5324. Research work

 practicum (2-3)Faculty. Students learn research skills by participating actively in an ongoing faculty research project.

## HUDK 6010. Developmental

 research methods (3)Professor K uhn. A dvanced survey of both new and classical methods for conducting research designed to answer developmental questions.

HUDK 6036-HUDK 6037. Child and family policy (2-3 each)
Professor Brooks-Gunn. Prerequisites: Any 2 of the following: HUDF 4000; H UDF 4024; HUDK 4120; HUDK 4121; C\&T 4113; C\&T 5113. Provides a multidisciplinary perspective on child and family policy. Also provides a foundation of knowledge concerning the role of child and family perspectives in informing policy.

## HUDK 6520. Seminar in social and emotional development through childhood and adoles-

 cence (2-3)Professor Brooks-Gunn. Permission required. H ow people become socialized and how psychology deals with the process in terms of developmental concepts.

HUDK 6523. Seminar in cognitive development (2-3) Professor Kuhn. Permission required. Advanced topics in research and theory in cognitive development.

HUDK 6524. Seminar in crosscultural developmental psychology (2-3)
Professor Fernandez. Permission required. Students participate in ongoing research.

HUDK 6529. Seminar in risk, resilience and developmental psychology (2-3)
Professor Luthar. Permission required. Students partici pate in ongoing research.

HUDK 6572. Seminar in the psychology of education (2-3) Professor Ginsburg. Permission required. Students partici pate in ongoing research.

HUDK 6620. Special topics in developmental psychology (1-3)
Permission required. Topics to be announced.

## Independent Study and Research

Students may register for intensive individual study of a topic of special interest. Registration in independent study is by permission of the instructor under whose guidance the work will be undertaken. Credit may range from 1 to 3 points each term except for HUDK 8900. (Dissertation hours for individual consultation are to be arranged.)

HUDK 4901. Research and independent study (1-3 each course)

## HUDK 6901. Advanced research and independent study (1-3 each course)

HUDK 7501. Dissertation seminar (1-3 each course)
Permission required. Devel opment of doctoral dissertations and presentation of plans for approval.
Registration limited to two terms.

## HUDK 8900. Dissertation

advisement (0 each course)
Individual advisement on doctoral dissertation. Fee to equal 3 points at current tuition rate for each term. See catal og section on Continuous Registration for Ed.D./Ph.D. degrees.

## Department of <br> Human Development

## Measurement, <br> Evaluation, and

Statistics
Program Coordinators: Professors J ane A. M onroe (A pplied Statistics) and Lawrence T. DeCarlo (M easurement and Evaluation)

## Applied Statistics

(Code: TMX)

## D egree Offered:

Master of Science (M.S.)

## Special Application

 Requirements/Information:GRE General Test is required for the M.S. in Applied Statistics. Background in calculus is al so required.

## Program Description:

The M.S. in Applied Statistics requires at least one year of study. This master's degree provides training for a number of positions in applied research settings, testing organizations, and business organizations. In addition to the satisfactory completion of course work, an integrative project is required.

## D egree Requirements:

## Master of Science-32 points

Statistics (27 points):

- HUDM 4122, Probability and statistical inference
- HUDM 5122, Applied regression anal ysis
- HUDM 5123, Linear models and experimental design
- HUDM 6122, Multivariate analysis
- HUDM 6123, Multivariate analysis II
- HUDM 6030, Multilevel and Iongitudinal data analysis
- HUDM 6055, Latent structure anal ysis
-W 4105, Probability; and W 4107, Statistical inference are taken at Columbia University's G raduate School of Arts and Sciences.

Electives (5 points):
Selected in consultation with an advisor and within the areas of Management Science, Economics, Public H eal th, Computer Science, Psychology, Sociol ogy, or Research M ethods in any general area.

Distribution Requirement: At least 2 of the above courses (for a minimum of 2 points each) must be taken at Teachers College from outside the department.

Culminating Experience Special project.

## M easurement and <br> Evaluation <br> (Code: TMM)

## D egrees Offered:

M aster of Education (Ed.M.) D octor of Education (Ed.D.) D octor of Philosophy (Ph.D.)

## Special Application

 Requirements/I nformation: GRE General test is required for all programs in M easurement and Evaluation. Some preparation in collegelevel mathematics or statistics course work is required for doctoral study.
## Program D escriptions:

The Ed.D. and Ph.D. programs in measurement and evaluation are designed to prepare graduates for careers in a wide range of educational settings. Graduates acquire specialized knowledge and skills in test theory, test and instrument development and validation, program evaluation, and quantitative anal ysis of educational and psychological data.

Some graduates pursue careers as college professors teaching measurement, evaluation, and statistics. Some are employed in city or state departments of education in the planning and supervision of testing programs
and research and evaluation projects. Others work for test publishers, licensure and certification boards, and government agencies in the construction of tests or in the management of large scal e testing programs. Still others work in applied measurement, evaluation, research design, and statistics in a variety of social science, health care, business, and industrial settings.

The Ed.M. in M easurement and Evaluation is a two-year master's degree. It provides training for a number of positions in educational research bureaus and testing organizations. In addition to the satisfactory completion of course work, an integrative project is required for the master's degree.

A doctorate is required for most college teaching positions and for positions of professional responsibility in testing orga nizations, departments of education, and licensure and certification boards. The Ph.D. is appropriate for individuals with strong quantitative and technical skills who wish to focus on theoretical issues in measurement and evaluation, or who have a strong background in a substantive area of psychology in which they wish to further the devel opment and application of measurement techniques.

The Ed.D. is appropriate for individuals who wish to focus on the application of measurement and evaluation techniques in education, psychology, and business and industry. Both doctoral degrees are accepted as qualification for faculty positions in Schools of Education in the United States.

## D egree Requirements:

## M aster of Education-60 points

M easurement and E valuation Core (18 points):

- HUDM 5059, Psychological measurement
- HUDM 5055-5056, Evaluation of institutions, programs, and curricula I and II
- HUDM 6051-6052, Psychometric Theory I and II
- HUDM 6055, Latent structure anal ysis

Quantitative M ehods
(15 points):

- HUDM 4122, Probability and statistical inference
- HUDM 5122, Applied regression analysis
- HUDM 5123, Linear models and experimental design
- HUDM 6030, Multilevel and Iongitudinal data anal ysis
- HUDM 6122, Multivariate analysis 1 ; and 3 points in data management

Psychology (12 points):
Taken in one or more of the following areas: Developmental psychology, cognitive studies, counsel ing psychology, organizational psychology, or social psychology.

Research M ethods (6 points):

- HUD 4120, Methods of empirical research
- HUDM 5250, Research practicum in measurement and evaluation

Othe A spects in Education (6-9 points):
One course in foundations of education; and 2 courses in curriculum and teaching and/or educational administration.

## Electives:

Chosen in consultation with an advi sor and designed to strengthen and broaden the student's professional preparation.

Culminating Exprience: An evaluation project.

## Doctor of Philosophy-75 points

M easurement and Evaluation Core (24 points):

- HUDM 5059, Psychological measurement
- HUDM 5124, Multidimensional scaling and clustering
- HUDM 5250, Research practicum in measurement and evaluation
- HUDM 6030, Multilevel and Iongitudinal data anal ysis
- HUDM 6051-6052, Psychometric Theory I and II
- HUDM 6055, Latent structure anal ysis

And at least 3 points selected from the following:

- HUDM 5055-5056, Evaluation of institutions, programs, and curriculal and II
- HUDM 5058, Choice and decision making
- HUDM 5550, Current issues in measurement and evaluation
- CCPJ 5062, Career counseling and development

QuantitativeM ethods and
Research D esign (29 points):

- HUD 4120, M ethods of empirical research
- HUDM 4122, Probability and statistical inference
- HUDM 5122, Applied regression anal ysis
- HUDM 5123, Linear models and experimental design
- HUDM 6026, Statistical treatment of mass data
- HUDM 6122-6123, Multivariate anal ysis I and II
- HUDM 7500, Dissertation seminar
- HUDM 8900, Dissertation advisement
- Also W 4105, Probability; and W 4107, Statistical inference, taken at the Graduate School of Arts and Sciences of Columbia U niversity.

P sychology (minimum of 15 points):
In consultation with an advisor, a group of courses aimed at substantive preparation in the field of psychology.
$N$ on-department Requirement (7 points):
Courses in the social sciences, curriculum and teaching, and educational administration selected in consultation with an advisor from offerings at Teachers College and other branches of Columbia U niversity.

Special Requirements: The first two years require full-time study. An empirical paper and a research paper; certification examination; and completion of an approved doctoral dissertation.

## Doctor of Education-90 points

$M$ easurement and E valuation C ore (31 points):

- H UDM 5059, Psychological measurement
- HUDM 5055-5056, Evaluation of institutions, programs, and curriculal and II
- HUDM 5250, Research practicum in measurement and evaluation
- HUDM 6030, Multilevel and longitudinal anal ysis
- HUDM 6051-6052, Psychometric Theory I and II
- HUDM 6055, Latent structure analysis

And at least 3 points selected from the following:

- HUDM 5058, Choice and decision making
- H U DM 5554, Performance and proficiency eval uation.
- HUDM 6552, Seminar: selected topics in measurement theory

Quantitative M ethods and
Research D esign (25 points):

- HUD 4120, M ethods of empirical research
- HUDM 4122, Probability and statistical inference
- HUDM 5122, Applied regression anal ysis
- HUDM 5123, Linear models and experimental design
- HUDM 5124, M ultidimensional scaling and clustering
- HUDM 6122-6123, Multivariate statistics I and II
- HUDM 7500, Dissertation seminar
- HUDM 8900, Dissertation advisement; and a data management course

P sychol ogy (minimum of 18 points):
In consultation with an advisor a group of courses aimed at substantive preparation in the field of psychology.

Related Courses (minimum of 6 points):
Selected from the areas of curriculum development, guidance, applied human development, supervision, and administration, and in consultation with an advisor.

## Electives (maximum of

 10 points):Selected to meet special interests and needs.

Special Requirements: The first two years require full-time study. Certification paper and examination; completion of an approved doctoral dissertation.

## Courses:

Courses at the 4000-level usually do not require permission of the instructor and are open to nonmajors as well as majors. M any 5000level offerings are al so open to nonmaj ors with appropriate backgrounds; 6000 -level courses are usually limited to majors with advanced standing in the program. Seelistings below for prerequisites and limitations on enrollment. In addition to the courses listed below, students should consult the offerings of other programs in psychology, many of which are required or recommended in the program guides obtainable from the department office.

## Measurement and Evaluation

HUD 4120. Methods of empiri-
cal research (3)
Faculty. An introduction to the methods of scientific inquiry, research planning, and techniques of making observations and analyzing and presenting data. Topics include: methods of inquiry, the role of research in theory, formulating problems and hypotheses, sampling, measurement, and the design of empirical research. Opportunity to design research projects.

## HUDM 4050. Introduction to

measurement (2-3)
Professors Chatterji and DeCarlo. General issues of reliability, validity, norms, etc. Techniques of appraising aptitude, achievement, personal ity; teacher-made tests; standardized tests in selection, pupil classification, guidance.

HUDM 5055-HUDM 5056.
Evaluation of institutions, programs, and curricula (3 each) Professor Chatterji. Permission required. Prerequisites for HUDM 5055: HUDM 4050, H UDM 4122, and HUD 4120 or equivalents. Prerequisite for H UDM 5056: HUDM 5055; H UDM 5122 is recommended. Lecture, discussion, laboratory, and fieldwork on the problems, issues, and procedures involved in designing and carrying out evaluation studies.

## HUDM 5058. Choice and deci-

## sion making (3)

Professor Corter. Prerequisite: HUDM 4122 or equivalent. Surveys quantitative models of individual decision making, from the introduction of the notion of "utility" by Daniel Bernoulli through current models such as Tversky and K ahneman's "Prospect Theory." The focus is on psychological or descriptive models of how people make decisions, although methods of rational decision analysis are briefly discussed.

## HUDM 5059. Psychological

measurement (3)
Professor DeCarlo. Open to doctoral and Ed.M. students in psychology; others only by permission. A previous course in statistics or measurement is recommended. Critical examination of basic issues
in assessing psychological characteristics. Validity, reliability, units of measurement; theories of aptitude and intelligence; use of multiple measures in prediction and diagnosis.

## HUDM 5250. Research

practicum in measurement and evaluation (0-4)
Faculty. Permission required. Students enrolled are expected to spend a semester involved in a research project, either assisting a faculty member or in an applied setting. A formal report will be submitted.

## HUDM 5550. Current issues in

 measurement and evaluation (3) Faculty. Prerequisites: H UDM 6051 and H U DM 6122. Selected topics of current interest to mea surement theory or practice examined in depth.HUDM 5552. Problems and procedures in the measurement of attitudes (1)
Faculty. Prerequisite: H UDM 4050 or equival ent. H alf-semester course. Introduction to Likert and equal appearing interval scale methods.

HUDM 5553. Questionnaire construction (1)
Faculty. Prerequisite: H UDM 4050 or equival ent. H alf-semester course. Introduction to item writing and the construction of questionnaires and interview schedules.

HUDM 5554. Performance and proficiency evaluation (1)
Faculty. Prerequisite: H UDM 4050 or equival ent. H alf-semester course. Introduction to measures for assessing performance and proficiency

HUDM 6030. Multilevel and longitudinal data analysis (3) Professor DeCarlo. Prerequisite: HUDM 5122. Multilevel models include a broad range of models called by various names, such as random effects models, multilevel models, and growth curve models. This course introduces the background and computer skills needed to understand and utilize these models.

HUDM 6051-HUDM 6052. Psychometric Theory I and II (3 each)
Faculty. Permission required. Prerequisites: HUDM 5059, HUDM 5122, or equivalents. Psychometric theory underlying test construction; classi cal test theory, item response theory, and applications.

HUDM 6055. Latent structure analysis (3)
Professor DeCarlo. Permission required. Prerequisite: HUDM 5122. Recommended: H UDM 6122. Study of latent structure analysis, including measurement models for latent traits and latent classes, path anal ysis, factor analysis, structural equations, and categorical data analysis.

## HUDM 6552. Seminar: selected

 topics in measurement theory (3)Faculty. Prerequisite: H U DM 6051 and HUDM 6122. One or more topics of current interest examined in depth.

## Statistics

H U DM 4120. Basic concepts in statistics (3)
Faculty. Descriptive statistics including organizing, summarizing, reporting, and interpreting data. Understanding relationships expressed by crosstabulation, breakdown, and scatterdiagrams. Designed as a one-semester introduction to statistical methods. Will include reading journal articles.

HUDM 4122. Probability and statistical inference (3)
Faculty. Prerequisite: H UDM 4120 or undergraduate statistics course. Elementary probability theory; random variables and probability distributions; sampling distributions; estimation theory and hypothesis testing using binomial normal, t , chi square, and F distributions.

## HUDM 5122. Applied regression analysis (3)

Faculty. Prerequisite: HUDM 4122 or permission of instructor. Least squares estimation theory. Traditional simple and multiple regression models, polynomial regression models, with grouping variables including oneway AN OVA, twoway AN OVA, and analysis of
covariance. Lab devoted to applications of SPSS regression program. Lab fee: \$75.

## HUDM 5123. Linear models

 and experimental design (3) Faculty. Prerequisite: HUDM 5122. A nal ysis of variance models including within subject designs, mixed models, blocking, Latin Square, path anal ysis, and models with categorical dependent variables. Lab devoted to computer applications. Lab fee: $\$ 75$.H UDM 5124. Multidimensional scaling and clustering (3) Professor Corter. Permission required. Prerequisites: HUDM 4122 and HUDM 5122 or equivaIent. M ethods of anal yzing proximity data (similarities, correla tions, etc.), including multidimensional scaling, which represents similarities among items by plotting the items into a geometric space, and cluster analysis for grouping items.

## HUDM 6026. Statistical treat-

 ment of mass data (3) Professors Corter. Prerequisite: HUDM 5123 or equival ent. Examines problems involved in preparing and anal yzing large data sets. Includes a survey of data manipulation and statistical tools in SAS (Statistical A nal ysis System). Optional topics: introduction to numerical methods and survey of "data mining" tools.
## HUDM 6122. Multivariate

 analysis I (3)Professor M onroe. Permission required. Prerequisite: H UDM 5122 or equivalent; H UDM 5123 recommended. An introduction to multivariate statistical anal ysis, including matrix al gebra, general linear hypothesis and application, profile analysis, principal components anal ysis, discriminant analysis, classification methods.

HUDM 6123. Multivariate analysis II (3)
Professor M onroe. Permission required. Prerequisite: HUDM 6122. A continuation of multivariate statistical anal ysis, including canonical analysis, MAN OVA, and factor analysis.

## Independent Study and Research

Students may register for intensive individual study of a topic of special interest. Registration in independent study is by permission of the instructor under whose guidance the work will be undertaken. Credit may range from 1 to 3 points each term except for
HUDM 8900 (Dissertation Advisement); and registration is not limited to one term. H ours for individual conferences are to be arranged.
HUDM 4901. Research and independent study: Measurement and evaluation (1-3) HUDM 4902. Research and independent study: A pplied statistics (1-3)
HUDM 6900. Advanced research and independent study (1-3) HUDM 7500. D issertation seminar (1-3)
Permission required. Development of doctoral dissertations and presentation of plans for approval. Registration limited to two terms.
HUDM 8900. Dissertation advisement (0)
Individual advisement on doctoral dissertation. Fee to equal 3 points at current tuition rate for each term. See section in catalog on Continuous Registration for Ed.D./Ph.D. degrees.

## Politics and Education (Code: TFG)

Program Coordinators: Doctoral Programs: Professor R obert McClintock; M aster's Programs: Gary N atriello

## D egrees offered:

M aster of Arts (M.A.)
M aster of Education (Ed.M.)
D octor of Education (Ed.D.)
Doctor of Philosophy (Ph.D.)
Educational Policy concentra
tion (option available)

## Spedial Application Requirements/Information:

The GRE general is required for all doctoral applicants. Doctoral applicants are reviewed for Fall term only.

## Program Description:

The Politics and Education program is a base for students who wish to study educational policy, whether federal, state or local, from pre-school to higher and adult education. Students learn not only about the formuIation of policies, but how to eval uate their effectiveness. The program provides training and hands-on experience in evaluation methods, and both quantitative and qual itative methods.

Students in the program pursue the study of policies affecting K-12 public education, four-year and community colleges, pre-school programs, parenting and parent-school coordination, technology in education, school choice, charter schools, school restructuring, and teacher empowerment.

Students are encouraged to take related course work with the extended "Faculty in Politics and Education", with professors representing numerous departments at Teachers College, including school and classroom reform with Gary N atriello; school-business partnerships and school-to-work programs with Thomas Bailey and Terry Orr; state and federal policy making with D orothy Shipps and Thomas Sobol; child and adolescent development with J eanne BrooksGunn and Suniya Luthar; school finance with Craig Richards; school choice with Peter Cookson; international education policy with Gita Steiner-K hamsi; special education policy with Dennis Mithaug; health policy with John Allegrante and Barbara W allace; non-public schooling and charter schools with Pearl

K ane, and law and education with J ay H eubert.

Students choose policy courses offered throughout Teachers College as well as the various other schools of Columbia University including the Law School, the School of International and Public Affairs, and the graduate departments of Sociology, Political Science and History.

Students are al so encouraged to gain teaching experience, as this is integral for anyone serious about affecting change in the educational policy arena. M any students attend the program part-time while teaching in public or private schools. A pplicants interested in both teacher certification and policy study are encouraged to apply to the 40-point pre-service M .A. in Curriculum and Teaching or one of the high school education programs, following up with the Ed.M in Politics and Education.

Politics and Education students may al so choose to participate in the Educational Policy Concentration if they wish to further hone their policy skills.

## D egree Requirements:

## M aster of Arts-32 points Master of Education-60 points

Required Courses (12 points): Select from the following:

- HUDF 4000, Education and public policy
- HUDF 4040, American politics and education
- HUDF 4042, Comparative politics and education
- HUDF 4043, Political thought and education
- HUDF 5042, Urban politics and education
- HUDF 5046, Education and politics in W estern thought
- ORLA 4030, Ethical issues in educational leadership
- ORLA 4040, Education policy decision making
- OR LA 4042, R ole of the state in education, governance, policy and practice
- OR LA 4086, Law and educa tional institutions: Issues of authority, religion, free speech, and safety
- ORLA 5012, Community politics, community policies and administrators
- ORLA 5541, Federal politics, federal policies and administrators
- OR LA 5544, Current topics in policy analysis for administrators
- OR LA 5646, Topics in policy planning and implementation: Concepts and techniques

Statistics (6 points):
HUDM 4122, Probability and statistical inference. An approved course in qualitative methods M .Ed. students al so completeHUDM 5122,
A pplied regression anal ysis.
Policy Sequence (6 points)

- H U DF 5645, Policy seminar I, and
- HUDF 5646, Policy seminar II

Electives (6-8 points): Selected in consultation with an advisor. (M.Ed. students will complete 31-33 points, in consultation with an advisor.)

Culminating Experience
(0-2 points)

- M aster's comprehensive examination, or
- M aster's essay and H UDF 6021, Social research methods: Reporting (2 points)


## Doctor of Philosophy-75 points

Required C ourses (12 points):
Select from the following:

- HUDF 4000, Education and public policy
- HUDF 4040, A merican politics and education
- HUDF 4042, Comparative politics and education
- HUDF 4043, Political thought and education
- HUDF 5042, U rban politics and education
- HUDF 5045, Race, ethnicity and US educational policy
- HUDF 5046, Education and politics in W estern thought
- ORLA 4030, Ethical issues in educational leadership
- ORLA 4040, Education policy decision making
- ORLA 4042, R ole of the state in education, governance, policy and practice
- ORLA 4086, Law and educational institutions: Social policy-student personnel
- ORLA 5012, Community politics, community policies and administrators
- ORLA 5541, Federal politics, federal policies and administrators
- ORLA 5645, Topics in policy planning and implementation: Intergovernmental relationships
- ORLA 5646, Topics in policy planning and implementation: Concepts and techniques

Statistics (6 points):

- HUDM 4122, Probability and statistical inference
- HUDM 5122, Applied regression analysis

M ehodology (6 points):
Appropriate courses selected in consultation with an advisor.

Seminars and Colloquia
(6 points):
Two of the following:

- HUDF 5640, Colloquium on the politics of education
- HUDF 6540, Seminar in politics and education
- HUDF 7500, Dissertation seminar

Political Science (6 points): Two courses in political science from the Graduate School of Arts and Science sel ected in consultation with an advisor.

## A dditional Courses:

In consultation with an advisor, policy-rel ated courses are

# Department of <br> Human Development 

selected from Teachers College, the Graduate School of Arts and Sciences, and the School of International and Public Affairs. At least 3 courses must be from outside the department.

A dditional Requirements: Foreign language and certification examinations. Completion of an approved dissertation.
$N$ ote R efer to the $D$ egree $R$ equir rements section of this catalog for information regarding transfer credits.

## Doctor of Education-90 points

Required Courses (12 points): Select from the following:

- HUDF 4000, Education and public policy
- HUDF 4040, A merican politics and education
- HUDF 4042, Comparative politics and education
- HUDF 4043, Political thought and education
- HUDF 5042, U rban politics and education
- H U DF 5045, R ace, ethnicity and US educational policy
- HUDF 5046, Education and politics in W estern thought
- ORLA 4030, Ethical issues in educational leadership
- ORLA 4040, Education policy decision making
- ORLA 4042, R ole of the state in education, governance, policy and practice
- ORLA 4086, Law and educational institutions: Social policy- student personnel
- ORLA 5012, Community politics, community policies and administrators
- ORLA 5541, Federal politics, federal policies and administrators
- ORLA 5645, Topics in policy planning and implementation: Intergovernmental relationships
- ORLA 5646, Topics in policy planning and implementation: Concepts and techniques

Statistics (6 points):

- HUDM 4122, Probability and statistical inference
- HUDM 5122, Applied regression analysis

M ethodology (6 points):
Selected in consultation with an advisor.

Seminars and Colloquia
(6 points):
Two of the following:

- HUDF 5640, Colloquium on the politics of education
- H UDF 6540, Seminar in politics and education
- HUDF 7500, Dissertation seminar

A dditional Courses (60 points): In consultation with an advisor, policy-related courses are sel ected from Teachers College, the Graduate School of A rts and Sciences, and the School of International and Public Affairs. At least 3 courses must be from outside the department.

A dditional Requirements: Foreign language and certification examinations. Completion of an approved dissertation.

Educational Policy Option
HUDF 4000, Education and public policy
HUDF 5645, Policy seminar I
H U DF 5646, Policy seminar II
H U DF 5430, Internship (or equivalent)

## Courses:

## Introductory

HUDF 4000. Education and public policy (3)
Faculty. Current issues in A merican educational policy.

## HUDF 4040. American politics and education (3)

Faculty. Introduction to the basic analytical categories of political science as they apply to the politics of education, including the influence of federal, state, and local governments in school policymaking, decentral ization, school finance, and desegregation.

H UDF 4042. Comparative politics and education (3)
Faculty. The politics of education in settings outside the U.S. Topics include the role of education in political development, political socialization, and student politics.

## H UDF 4043. Political thought

 and education (3)Faculty. Study of the educational imperatives inherent in the classics of W estern political thought.

## Intermediate

HUDF 5042. U rban politics and education (3)
Faculty. Politics in the nation's Iargest cities with a particular focus on educational politics and policy.

## HUDF 5044. Modern political

 theory and education (3)Dr. Snauwaert. Explores a number of educational policy issues from the perspective of contemporary political theory.

## H UDF 5045. Race, ethnicity,

 and U.S. educational policy (3)Faculty. Examination of the impact of race and ethnicity on the formation and implementation of policies such as desegration, affirmative action, bilingual education, and choice.

H UDF 5046. Education and politics in Western thought (3)
Faculty. Study in historical perspective of the interactions between technological innovation and education.

## Advanced

H UDF 5640. Colloquium on the politics of education (3)
Faculty. Continuous participation required of doctoral students until their dissertation proposals are accepted. A critical review of important works in politics and education, discussions with invited guests, presentations of work in progress.

H UDF 5642. Colloquium in political economy and education (3)
Faculty. Political and economic perspectives on contemporary problems of public policy and education.

HUDF 5645-H UDF 5646. Policy seminar (3 each)
Faculty. An examination of policy formation, analysis, implementation, and evaluation in education.

HUDF 6540. Seminar in politics of education (3)
Faculty/Staff. Permission required. Selected topics in the politics of education.

## Individualized Studies

HUDF 5430. Internship (1-6)
Permission required. Supervised experience in diverse settings designed to develop skills in pol-icy-rel ated research, devel opment, planning, and evaluation.

HUDF 7503. Dissertation seminar (0-3)
Permission required. Required of doctoral students in the semester following successful completion of certification examinations.

## HUDF 8903. Dissertation

advisement (0)
Individual advisement on doctoral dissertations. Fee: to equal 3 points at current tuition rate for each term. For requirements, see section in catalog on Continuous Registration for Ed.D./Ph.D. degrees.

Advanced students may register for intensive individual study of some aspect of their special ization. Registration is only by permission of the instructor under whose guidance the work will be undertaken. Times for individual conferences will be arranged. Enrollment may be for 1 or more points each term, and registration is not limited to one or two terms.

HUDF 6940. Studies in politics and education (1-15)

See: Program in Sodiol ogy and Education for additional courses of interest.

## Sociology and Education (Code: TFS)

Program Coordinator: Professor Gary N atriello

## D egrees offered:

M aster of Arts (M.A.)
M aster of Education (Ed.M
Doctor of Education (Ed.D.) D octor of Philosophy (Ph.D.), Educational Policy (option available)

## Special Application

 Requirements/Information: The GRE general is required for all doctoral applicants, and doctoral applications are reviewed for Fall term only.
## Program Description:

The sociological inquiry of education began at Teachers College in the first decade of the twentieth century. Sociology was established as the first social science discipline providing a basic framework for the study of education, comple menting the long-established reliance on psychology. O ver this ninety-year period, the sociology and education program has applied research findings to education and has examined basic issues in educa tion from a sociological perspective. Although the program's theory and research have emphasized schools and colleges, attention al ways has been given to education in other contexts.

The program staff for sociology and education includes sociologists from other programs at the College, and the Department of Sociology of the Graduate School of Arts and Sciences. Staff strengths are in sociology of education generally, but al so in online education, organizational studies, family and community education, stratification, racial issues, and urban sociology. The program provides training and
hands-on experience in evalua tion methods and both quantitative and qual itative methods. The curriculum of the Sociology and Education program emphasizes issues in urban education, including the social organization of urban schools and school systems, and the success or failure of urban schools in meeting the educational needs of the diverse populations they serve. The program faculty are actively engaged in the analysis and evaluation of educational policies and programs designed to serve educationally disadvantaged populations.

The program in Sociology and Education al so offers a specialization in Educational Policy for students in the M.A. and Ed.M. programs.

## D egree Programs

The Graduate Program in Sociology and Education offers four degree programs, the M.A., the M.Ed., the Ph.D., and the Ed.D. Each program is designed to meet the needs of students with a particular combination of prior experience and career objectives. The M.A., M .Ed., and Ed.D. programs may be completed on a part-time basis with classes are offered in the evening hours. ThePh.D. program requires full-time study. Although students from all of the programs in sociology and education are prepared to assume positions in educational institutions, the program does not offer professional certification. Certification programs are avai lable in other departments at Teachers College.

## M.A. in Sociology and Education and Policy

The M aster of Arts program in sociology and education and policy provides an introduction to the application of sociological perspectives to contemporary educational policy issues.

The program provides coverage of the core principles and methods of sociology as they are applied to policy research and analysis. Students completing this program are prepared to assume positions as general analysts in a variety of organizations devoted to applied educational research, policy making, advocacy, consulting, and direct educational service.

## M.Ed. in Sociology and Education and Policy

The M aster of Education in sociology and education and policy is an advanced masters degree pursued by students who al ready possess a masters degree in a substantive area of education or by students without a prior masters degree who want an opportunity to combine study in sociology and education with another area in education. The program involves study of sociological perspectives and methods in the context of contemporary educational policy issues. Current substantive areas that can be combined with study in sociology and policy include: evaluation and institutional analysis, human development, technol ogy, curriculum, administration, and foundations. Students completing this program are prepared to assume positions as special ists in a variety of organizations devoted to applied educational research, policy making, advocacy, consulting, and management of educational activities.

## Ph.D. in Sociology and Education

The Doctor of Philosophy in Education (Ph.D.) program is designed for students with substantial background and interest in the discipline of sociology and its application to education. The Ph.D. is a highly special ized degree with few electives and requires substantial course work to be done in daytime classes at the G rad-
uate School of Arts and Sciences. Because this program requires full-time study, students should give careful consideration to the financial resources required to complete this degree. Students completing this program are prepared to assume positions in college and university programs focused on sociological research in the field of education. Students are cautioned that such employment prospects arelimited.

## Ed.D. in Sociology and Education

The Doctor of Education (Ed.D) program is designed to provide broad training in the social sciences, education, and educational policy. The program prepares students for positions in teaching, research, and policy through interdisciplinary study grounded in the sociological perspective. All coursework is available at Teachers College and both part-time and full-time study is possible. Students completing this program are prepared to assume positions in college and university programs in education as well as leadership positions in a variety of organizations devoted to applied educational research, policy making, advocacy, consulting, and management of educational activities.

## D egree Requirements:

## M aster of Arts-32 points <br> Master of Education-60 points

Sodiol ogy C ore (minimum of 12 points):
Select from:

- HUDF 4000, Education and public policy
- HUDF 4019, Sociology of online learning
- H U DF 4021, Sociology of education
- HUDF 4022, Sociology of urban education


# Department of <br> Human Development 

- HUDF 4024, Social stratification and education
- HUDF 4027, Sociology of classrooms
- HUDF 4028, Sociology of the life course
- HUDF 4029, Sociology of schools
- HUDF 4031, Sociology of evaluation
- HUDF 4032, Gender and inequality: role of the school
- HUDF 4033, School improvement in the inner city
- HUDF 5023, Thefamily as educator
- HUDF 5026, The family and television
- HUDF 5120, Education in community settings
- HUDF 5621, Technology and society
- HUDF 6525, Seminar in sociology of education

Research $M$ ethods (6 points):

- HUDM 4122, Probability and statistical inference
- An approved course in qualitative methods
- M.Ed. students al so complete HUDM 5122, Applied regression anal ysis

Policy Sequence ( 6 points)

- HUDF 5645, Policy seminar I, and
- HUDF 5646, Policy seminar II

Colloquia (3 points)

- HUDF 4620, Introductory colloquium in sociology and education, or
- HUDF 5100, Supervised research and practice

Electives (3-5 points): Selected in consultation with an advisor. (M.Ed. students will complete 28-30 points, in consultation with an advisor.)

Culminating Exprience
(0-2 points)

- Master's comprehensive examination, or
- Master's essay and HUDF 6021, Social research methods: Reporting (2 points)

Doctor of Philosophy- 75 points
All Ph.D. student programs generally follow the require ments for the Ph.D. in sociology for the first two years of study followed by specialized student in the sociology of education. Specific course plans are developed in consultation with an advisor.

Doctor of Education - 90 points course plans are devel oped in consultation with an advisor
Ed.D. students work with an advisor to develop an interdisciplinary program for study with a specialization in the sociol ogy of education.

## Educational Policy Option

HUDF 4000, Education and public policy
HUDF 5645, Policy seminar I HUDF 5646, Policy seminar II HUDF 5430, Internship (or equivalent)

## Courses:

HUDF 4010. Sociology of online learning (3)
Professor N atriello. Exploration of the social dimensions of online learning. Students examine the structure of online learning programs, the social organization of online learning communities, and the social experience of online learning activities.

HUDF 4021. Sociology of education (3)
Faculty. A broad analysis of educa tion using basic sociological concepts, including schools as organizations, social ization, stratification, and ethnic relations.

HUDF 4022. Sociology of urban education (3)
Faculty. A nalysis of urban school systems, schools, and students.

## HUDF 4024. Social stratification

 and education (3)Professor Cookson. An examination of the link between education and social inequality in W estern societies, questioning whether schools are a mechanism of social mobility, enabling poor and disadvantaged
children to get ahead in life, or whether schools perpetuate the hardships faced by poor and minority populations. Topics include the importance of quantity and quality of schooling for adult success; the ways in which race/ethnicity, sex and social class background structure students' educational experiences; the role of tracking and ability grouping within schools; and the link between schooling and the economy.

## HUDF 4027. Sociology of class-

 rooms (3)Professor $N$ atriello. An examination of sociological research on the structure and operation of classrooms. Particular attention to the processes of stratification, socialization, legitimation, and social organization.

## HUDF 4028. Sociology of the

## life course (3)

Professor Pallas. Sociologists define the life course of individuals by when, and in what order, people assume key social roles, such as becoming an adult, or moving from the workforce to retirement. This course looks at the sociol ogy of the life course, focusing on how historical and societal factors combine with the personal characteristics of individuals to produce unique life course patterns.

## HUDF 4029. Sociology of <br> schools (3)

Professor Natriello. An examina tion of sociological research on the structure and operation of schools. Particular attention to the processes of socialization, stratification, and legitimation as well as social organization and the sociology of school curriculum.

## H UDF 4030. Sociology of educational processes in formal organizations (3)

Professor $N$ atriello. An introduction to organizational theory as it applies to a variety of institutions with particular attention to the potential of educational activities as a force in formal organizations.

HUDF 4031. Sociology of evaluation (3)
Professor Natriello. An examination of the social dimensions of the development and operation of different kinds of evaluation systems in modern societies. Major topics include the social, political and intel lectual contexts for eval uation, the institutional bases of evalua tion activities, the social settings in which evaluation takes place, and the effects of evaluations on individuals and groups.

## HUDF 4032. Gender and inequality: The role of the school (2-3)

Faculty. A study of the extent and causes of gender inequal ity in society, and the ways in which schools work both to reduce and exacerbate inequality.

HUDF 4033. School improvement in the inner city: a sociological view (2-3)
Faculty. A sociological examination of effective inner-city school reforms via lectures, readings, and field visits.

HUDF 4620. Introductory colloquium in sociology of education (1-3)
Professor Pallas. Permission required. Intensive readings and discussions of basic literature in sociology of education, with attention to common issues and research strategies.

## HUDF 5020. Methods of social

 research: Survey methods (3) Faculty. Relationship between research problem and study design, choice of population, sampling methods, instrument construction, interviewing, data processing, and anal ysis.
## HUDF 5021. Methods of social research: Evaluation methods

 (3-6)Faculty. Introduction to the principles of program eval uation. The course addresses the what, how (quantitative and qual itative), and why of evaluation. Through a blend of theoretical and case study examples, students will actively engage a wide range of issues and become informed consumers of program evaluations.

HUDF 5022. Sociological analysis of educational systems (2-3) Professor $N$ atriello. A nal ysis of local and national education systems through application and adaptation of organization theory, with special attention to problems of innovation.

HUDF 5023. The family as educator (3)
Professor Leichter. Permission required. A nal ysis of the family as educator and its interrelations with schools and other educational institutions. Emphasis on inquiry deriving from educational practice and behavioral science theory.

HUDF 5026. The family and television (3)
Professor Leichter. Permission required. An analysis of the impact of television on the family's educa tive functions, with special attention to the process by which the family mediates television.

HUDF 5028. School dropouts and educational policy (3) Professor Pallas. A consideration of a variety of issues associated with the phenomenon of school dropouts. Topics include measuring dropouts and dropout rates, the causes and consequences of dropping out of school, what works in dropout prevention, and educational policy and school dropouts.

HUDF 5029. Sociological research methods in educa tional settings (3)
Faculty. M ethods for the anal ysis of quantitative data and hypothesis testing. U se of SPSS computer program for cross-tabulation, correlation, and multiple regression.

HUDF 5030. Sociological theories of education (3)
Faculty. Prerequisite: one sociology of education course or consent of the instructor. An intensive analysis of the major theoretical writings of functional ist, M arxist, Weberian, and feminist scholars.

HUDF 5120-HUDF 5123. Education in community settings Professor Leichter. Permission required. A review and analysis of educational issues and opportunities in various community settings. Students may elect to take one or more for 1-2 points each. Special fee: \$5.

- HUDF 5120. Museums (1-2)
- HUDF 5121. Community centers (1-2)
- HUDF 5122. Correctional institutions (1-2)
- HUDF 5123. Outdoor educational programs (1-2)


## HUDF 5620. Advanced colloquium in sociology of education

 (1-3)Faculty. This course is designed to enhance student knowledge of social theory in sociological research. Particular attention is devoted to deductive models of explanation and their use in the construction of theory and its application as a basis for empirical inquiry.

HUDF 5621. Technology and society (3)
Dr. Cline. Explores the many and varied dimensions of the impact of changing information technologies on major social institutions in contemporary society.

## HUDF 6021. Social research methods: reporting (1-2)

Faculty. Student teams will analyze data and write a social science article.

HUDF 6520. Seminar in families and communities as educators (1-3)
Professor Leichter. Permission required. A research seminar in the family and the community as educational systems.

HUDF 6525. Seminar in sociology of education (1-3)
Faculty. A seminar for doctoral students to further their professional development and to prepare for doctoral research.

HUDF 6534. Sociological theory in educational research (3)
Professor N atriello. A pplication of sociological theories to educational research and development within a variety of institutions.

Individualized Studies
H UDF 4903. Research and independent study (1-3)
Permission required.
H UDF 5100. Supervised research and practice (1-6) Professor Natriello.

HUDF 6200. Field research outside the U nited States (0) Faculty. Permission required. Required of doctoral students when choice of doctoral research necessitates data generation in other countries. One year of field experience under supervision in approved geographical and institutional site. Students secure approval of department chair and principal advisor in advance, and render periodic reports.

H UDF 7503. D issertation seminar (0-3)
Permission required. Required of doctoral students in the semester following successful completion of certification examinations.

## H UDF 8903. Dissertation

advisement (0)
Individual advisement on doctoral dissertations. Fee: to equal 3 points at current tuition rate for each term. For requirements, see section in catal og on Continuous R egistration for Ed.D./Ph.D. degrees.

Advanced students may register for intensive individual study of some aspect of their specialization. Registration is only by permission of the instructor under whose guidance the work will be undertaken. Times for individual conferences will be arranged. Enrollment may be for 1 or more points each term, and registration is not limited to one or two terms.

H UDF 6920. Studies in sociology and education (1-15)

Chair: Professor H ervé Varenne
Location: 278 Dodge H all
Telephone N umber: 678-3947
Fax: 212-678-8237
Email: hhv1@columbia.edu

## Programs:

Anthropology and Education
A pplied Anthropology
Comparative and International Education
International Educational Development
Bilingual/Bicultural Education
Economics and Education

## Faculty:

## Professors:

Thomas R. Bailey
George C. Bond
Lambros Comitas
Charles C. H arrington
(Organization and Leadership)
H opeJ ensen Leichter
H enry Levin
Mun C. Tsang
H ervé Varenne

## Associate Professors:

Jo Anne K leifgen
Francisco Rivera-Batiz
Gita Steiner-K hamsi
M aria Emilia Torres-Guzman

## Assistant Professor:

Frances Vavrus

## Adjunct Professor:

J oseph Paul M artin

## Adjunct Associate Professors:

R obert W. Bailey
Betty A. Reardon
DaleT. Snauwaert

## Instructor:

Eric Larsen

## Partic ipating Faculty from the Graduate School of Arts \& Sciences:

Myron L. Cohen
Ralph L. Holloway

## Departmental mission:

As Teachers College embarks upon a new century, it is strengthening its commitment to the international arena. For the first time, it has committed the resources of an entire department to developing research and instructional programs in international and transcultural studies. As indicated by the name of the new department, the College is broadening its approach to this area. The introduction of the term trans-cultural conveys an additional perspective that reflects the challenges of the era in which we live.

N ew technologies haveled to a rapidly increasing flow of people, information, goods, and services within and across national boundaries. As these boundaries become more permeable, modern societies are characterized by greater diversification of people and resources. Such diversification introduces complex forces that can be best understood as transcultural. As individual and institutional identities increasingly reflect diverse cultural traditions and values, a major challenge to education is to promote new ways of understanding and negotiating these identities.

Our own country is a powerful example of an international and transcultural society, and the metropolitan area in which Teachers College is located is a particularly vivid expression of such a society. N ew York City and the U nited States are, in many ways, harbingers of what the 21st century will bring to cities and countries around the world.

International and transcultural forces will be increasingly present in all societies, and these forces will be crucial in under-
standing education in every domain of human experiencefamily, community, school, the workplace. In all these domains, people will be educated to participate in a world that is increasingly international and transcultural.

Such education will take place not only in schools, colleges, and universities but in all societal institutions- families; churches, synagogues, mosques, and temples; libraries, museums, and parks; mass media such as newspapers, magazines, radio, television, and computer networks; and the various kinds of workplaces that are emerging in our technological era.

Our department prepares professionals to provide leadership in the educative configurations emerging in the new century. To do so, we offer a range of disciplinary and professional programs and specializations with distinct emphases within the collective mission. The programs in Anthropology, Economics, and Comparative and International Education emphasize research on the social, cultural, economic and political aspects of global processes. The programs in International Educational Development and Bilingual Education prepare professionals across the whole range of educational practice to gain a global perspective.

Students work with faculty within the department in specializations such as applied educational finance; bilingual/bicultural education; civic education; language, literacy, and technology; family and community education; gender studies; and peace education. We work with other departments at the College to provide
our students additional specializations in such areas as adult education, conflict resolution, curriculum and teaching, educational leadership, heal th education, and policy studies. In addition, we cooperate with the School of International and Public Affairs at Columbia U niversity to provide regional specializations (e.g., A frican Studies, Eastern European Studies, Middle East Studies, Russian Studies, East Asian Studies, South Asian Studies). Students in Comparative and International Education who select academic disciplines other than anthropology or economics (e.g., sociology, political science, history, philosophy) also work closely with faculty outside the department.

## Comparative and

International Education
(Code: TFI)
Program Coordinator: Professor Mun C. Tsang

## International

## Educational Development

 (Code: TFZ)Program Coordinator: Professor Mun C. Tsang

## D egrees offered:

M aster of Arts (M.A.)
M aster of Education (Ed.M.)
Doctor of Education (Ed.D.)
[Code: TFZ only]
Doctor of Philosophy (Ph.D.)
[Code: TFI only]

## Spedial Application

Requirements/I nformation:
Appicants to the master's and doctoral degree programs in Comparative and International Education must indicate an academic discipline and a geographical area of specialization on their application for admission on the line where they indicate their choice of program.

Students seeking masters and doctoral degrees in the Interna tional Educational Development program select an academic or professional field of interest and either a transcultural or geographical area of study. They should indicate tentative areas of interest on their application for admission.

Doctoral applicants must submit an academic writing sample and should arrange if possible for an interview prior to applying. A social science educational background is preferred for those who wish to be considered for the Ph.D. program in Comparative and International Education.

## Program D escription:

In 1899, Teachers College became the first graduate institution in the U nited States to develop a program in comparative and international studies in education. The Program faculty were co-founders of the Comparative and International Education Society in 1954 and edited the Society's journal, Comparative E ducation Review, for many years.

From the 1960s, Teachers College also became instrumental in the study of the international development of education, founding the program in International Educational D evel opment. The Faculty of the programs continues to be active in conducting research or participating in educational activities around the world. The programs, in addition to the Institute for International Studies, play dominant roles in international activities and research at Teachers College.

The programs in Comparative and International Education and International Educational D evelopment provide advanced
preparation for professional careers in a wide range of teaching, policy and evaluation, administrative and research roles. Students may combine their studies with any area of concentration offered throughout the College.

Graduates of the programs are found in numerous educational positions including academic research and teaching, in educational planning, implementation, and evaluation roles in foundations, non-governmental organizations, governmental institutions, businesses and corporations, and private and public educational institutions.

## Comparative and International Education

Students in this program sel ect an academic discipline and a geographical area of specializa tion for masters and doctoral degrees. Within the department, the program offers academic disciplinary special izations in anthropology and economics, and the following geographical areas of specialty: A frican Studies, the Caribbean, Eastern European Studies, Middle East Studies, R ussian Studies, East Asian Studies and South Asian Studies and South American Studies.

In conjunction with, but outside the department, degree special izations are offered in History, Organizational and Social Psychology, Philosophy, Political Science, Religion and Sociology.

## International Educational Development

Students seeking masters and doctoral degrees in the International Educational Development program select an academic or professional field of interest and either a transcul-
tural or geographical area of study. Several academic and professional areas of concentration are offered, including: Bilingual/bicultural Education, Family and Community Education, Finance and Planning, Language, Literacy and Technology, and Peace Education.

In conjunction with, but outside the department, specializations are offered in:

- Adult Education
- Communication (computing and technology)
- Conflict Resolution
- Curriculum and Teaching
- Educational Administration
- H eal th Education
- Higher Education
- M athematics Education
- Policy Studies
- Science Education
- TESOL

Family and Community Education Teachers College continues its long history of groundbreaking work through the new specialization in Family and Community Education. In this specialization a founding premise concerning educational configurations is central.

In all societies individual s learn from many others in their social networks, e.g. parents, siblings, grandparents, peers, clergy, as well as teachers and other professionals. W hat is more, education takes place through many institutions, e.g. families, day-care centers, businesses, the media, museums, libraries, community agencies, religious institutions, as well as the schools.

Since the configurations of these educational networks and institutions are subject to change-sometimes drasticallyas in the case of new technological enterprises studies in Family and Community Education
examine the changing linkages among educative institutions in the community.

Fundamental changes in education al so stem from the extensive transnational migration and immigration taking place in many areas of the world today. Given increasing geographic mobility, together with new forms of communication, an understanding of the connections between local and global cultures, and the resources families and communities bring from one area to another is essential for educators and policy makers. Thus, another focus of study is family migration, immigration, and education.

The specialization offers courses for those in the various majors within the department, as well as those from other departments of Teachers College, Columbia U niversity, U nion Theol ogical Seminary, and J ewish Theological Seminary who feel their future work will benefit from new perspectives on families and communities.

Courses examine basic processes of education within families, for example, the social construction of family memories, the mediation of television and other forms of technology by families, as well as the changing configurations of education in community settings, for example, linkages among museums, families and schools. Framew orks for these courses are interdisciplinary, drawing upon concepts from the social sciences and the humanities.

Those who special ize in Family and Community Education will design their programs of study from the courses in Family and Community Education
listed below. In consultation with an advisor they may also select courses from other departments in Teachers College, as well as from elsewhere in Columbia U niversity. Opportunities are available for individually designed programs of study and research.

Finance and Planning The Finance and Planning concentration is devoted to the preparation of researchers, policy analysts, as well as managers and leaders in the financing and planning of education. The courses are designed to examine issues and topics central to the financing and planning of education at various levels across countries today and in the new century. These issues and topics include: financing quality basic education for all, equity and efficiency in financing, highereducation finance, privatization and educational choice, international aid and education, decision analysis and planning in education, as well as the international and transcultural contexts of educational financing and planning.

This concentration is intended for students who will pursue a career dealing with financial and planning aspects in a variety of education settings, including schools and universities, government education departments and ministries, international development organizations, as well as nonprofit and community organizations. In addition to courses listed below, students can select relevant courses from departments such as Organization and Leadership, Arts and H umanities, as well as from the larger university.

Language, Literacy, and Technology
In response to new media that are fostering al ternative forms of global communication, the department has developed a concentration in Language, Literacy, and Technology that explores the rel ations between traditional forms of communication and the newly emergent ones. In addition to the courses listed bel ow, students can select relevant courses from departments such as $M$ athematics, Science, and Technology and Arts and H umanities as well as from the larger university.

## P eace E ducation

In recognition of the unprecedented dimensions and overriding significance of issues of security, war and peace, human rights and social justice, sustainable devel opment and ecological bal ance in the nuclear age, the department has developed its concentration in Peace Education. Students are encouraged to follow a program that will prepare them to pursue the objectives of peace education in whatever area of education they choose to concentrate. In addition to the courses listed below, students can select relevant courses offered within other programs at Columbia U niversity, J ewish Theological Seminary, and Union Theological Seminary. Students may al so opt for a combined specialization in Peace Education and Conflict Resolution, which consists of three peace education and two conflict resolution courses.

At least one course in Conflict Resolution is required of all students special izing in peace education. The course may be chosen from among the following, depending on previous knowledge of the field. Those without previous background
must choose either ORLJ 5340 or ORLJ 6040.

## D egree R equirements:

The programs are designed to provide students challenging course work related to international and transcultural dimensions of education. Requirements include work in four areas: a core curriculum, a specialization which is either an academic discipline or a professional field of education, transcultural or geographi-cally-related study, and elective credits.

The program arrangements are designed to be as flexible as possible so that previous educational and professional experience and the future career goals of the student may be taken into account in the choice of appropriate course work.

Each student is expected to assume major responsibility for formulating, in cooperation with the program advisor, a plan of study that will best meet the general program requirements in a way most compatible with her/his own professional goals.

## M aster of Arts (32 points)

CoreC ourses: 6 points, including ITSF 4090 and ITSF 4091

- Special ization Courses: 12 points (in an academic discipline for Comparative and International Education or in a professional field of education for International Educational Development, as listed in the "Program Description" above)
- Transcultural/geographical area studies: 6 points
- Electives: 8 points
- Each M.A. candidate must complete a special integrative project, demonstrating the ability to integrate, syn-
thesize, and apply what has been learned in the program of study.


## Master of Education (60 points)

CoreCourses: 9 points

- Specialization Courses: 18 points (in an academic discipline for Comparative and International Education or in a professional field of education for International Educational Development, as listed in the"Program Description" above)
- Transcultural/G eographical area studies: 18 points
- Electives: 15 points
- Ed.M degree candidates must complete a special integrative project designed to illuminate a major aspect of the program of study.


## Doctor of Education (90 points)

(International Educational Development only)
CoreCourses: 12 points

- Courses in a field of professional education: 27 points
- Transcultural/geographical area studies: 27 points
- Electives: 24 points


## Doctor of Philosophy (75 points)

(Comparative and International
Education only)
CoreCourses: 9 points

- Courses in an allied discipline: 30 points
- Transcultural/geographical area studies: 18 points
- Electives: 18 points
- All doctoral students must pass a certification examination and prepare and present a dissertation which addresses a theme, problem, or issue in the area of special ization within the framework of comparative and international educational development. Ph.D. students must al so pass an oral certification exam.

International and Transcultural Studies

For further program information contact the Programs in International Educational D evelopment/Comparative and International Education, Teachers College, Columbia University, B ox 55, N ew York, N ew York 10027 or call 212-678-3184.

## Courses:

## General

ITSF 4054. Education and strategic planning (3)
Faculty. Educational planning within the context of national economic planning; the methods, assumptions, validity, and usefulness of the major approaches; examples mainly from the less developed countries.

ITSF 4090. I ssues and institutions in international educational development (3) Professors Tsang and Vavrus. Required of all first-year students in the program. This course explores current issues and debates regarding the nature of development and international education.

ITSF 4091. Comparative education (3)
Professor Steiner-K hamsi.
Required of all first-year students in the program. Introduction to theories in comparative education, cross-national comparative analysis, educational indicator research, educational transfer and borrowing, and relation between culture and education.

ITSF 4092. Qualitative research and evaluation in international education (3)
Professor Steiner-K hamsi. Section 1 The study of qual itative methodol ogies appropriate to various kinds of educational programs, issues, and problems in diverse research settings. Section 2 Enrollment limited. Evaluation of ongoing international or multicultural education projects in N ew York City or abroad. (also offered as an online course).

ITSF 4093. Preparation of instructional materials for developing countries (3) Faculty. Problems, issues, and approaches in the preparation of written and other instructional materials for developing countries.

ITSF 4094. Educational planning in international educational development (1-3) Point allocation to be determined by topic each time course is offered. Topic courses explore issues related to the socioeconomic and cultural context of educational planning and policy studies. They consider the relation to specific issues to various approaches to planning and their attendant outcomes. Topics include:

- Professor M artin, Topic 2: Human rights
- Professor Steiner-K hamsi, Topic 3: Civic literacy
- Professor Vavrus, Topic 6: Gender
- Faculty, Topic 7: Race and ethnicity

ITSF 4096. Strategic planning and organizational change in international and national educational settings (3)
Faculty. This course will focus on organizational and programmatic change and role of strategic planning in the change process. Students will apply a series of planning and implementation techniques such as "the future search planning conference," action/implementation planning, and basic tracking systems in ana lyzing existing, and developing new case studies.

ITSF 4097 International and comparative studies in educational finance (3)
Professor Tsang. Educational finance in international settings. Financing role of international development agencies. International and comparative studies in educational finance.

ITSF 5003. Communication and culture (3)
Professor Varenne. Introduction to major theories of human communication and culture as they relate and build on each other.

## ITSF5090. Education and Demographic Change

Professor Vavrus. This course examines the relationship between education and demographic change in international educational development. It focuses on historical and cultural changes in the areas of fertility, migration, mortal ity and sustai nable devel opment.

## ITSF 5580. Postcolonial studies

 of education (2-3)Professor Steiner-K hamsi. Prerequisites: ITSF 4090 and ITSF 4091, completed or taken concurrently. This course explores the impact of missionary, col onial education, and neo-col onial education on school reform both in dependent countries and in former colonial countries.

ITSF 5590. Education and the development of nations (3) Faculty. Permission required. This course pursues educational issues within transcultural contexts, including topics such as colonialism, nationalism, and multinational and donor influences in education.

ITSF 5691-ITSF 5692. Colloquium on international education and the United Nations Permission required. Enrollment limited. Through class interchange and use of United $N$ ations human and material resources, participants devel op innovative teaching materials suitable for their own educational systems. Courses may betaken independently.

- ITSF 5691. Goals and content: Major world developments and their implications for education (3) Professor Steiner-K hamsi.
- ITSF 5692. Theory and teaching techniques: New trends in international education (3) Faculty.

ITSF 6590. D octoral seminar in international and transcultural studies (1-3)
Faculty. Permission required. Pre sentation of research in progress and examination of professional roles.

Family and Community Education
ITSF 4034. D ynamics of family interaction (3)
Professor Varenne. An introduction to communication patterns inside families, with a special emphasis on both their complexity at the interpersonal level and their simplicity within the social structure of a community. Class time is dominated by cross-cultural data on family structure and videotape analyses of communication patterns within A merican families.

ITSF 5005. Interdisciplinary study of the family (3)
Professor Varenne. Critical examination of the interaction of internal and external forces and their effects upon individuals and families, drawing upon perspectives of various social science disciplines.

ITSF 5023. The family as educator (3)
Professor Leichter. Permission required. A nalysis of the family as educator and its interrelations with schools and other educational institutions. Emphasis on inquiry deriving from educational practice and behavioral science theory.

ITSF 5026. The family and television (3)
Professor Leichter. Permission required. An anal ysis of the impact of television on the family's educative functions, with special attention to the process by which the family mediates television.

ITSF 5120-ITSF 5123. Education in community settings Professor Leichter. Permission required. A review and an analysis of educational issues and opportunities in various community settings. Special fee: $\$ 5$.

- ITSF 5120. Museums (3)
- ITSF 5121. Community centers (2-3)
- ITSF 5122. Correctional institutions (1-2)
- ITSF 5123. Outdoor education and cultural tourism (1-2)

ITSF 6520. Seminar in families and communities as educators (1-3)
Professor Leichter. Permission required. A research seminar in the family and the community as educational systems.

## Finance and Planning

ITSF4055. Resource allocation in education (3)
Professor Levin. This course reviews the literature on school effectiveness with respect to the allocation of resources. It addresses and analyzes education production functions and cost-effectiveness anal ysis in educational decisionmaking.

ITSF 4094. Educational planning in international educational development (1-3)
Point al location to be determined by topic each time course is offered

- Professor Tsang, Topic 5:

Financing of education: International and comparative perspectives

ITSF4155. Education, privatization, and school choice (3)
Professor Levin. This course addresses the increasing emphasis on market-type choice systems including educational vouchers, for-profit educational firms, and charter schools. It places great emphasis on the theory of emerging empirical evidence underlying these devel opments in education.

- ORLD 4031. Financial administration of higher education institutions (Professor Bal dwin)
- ORLA 4046. School finance: Policy and practice (Professor Richards)
- ORLA 5016. Law and educational institutions (Faculty)
- ORLA 5025. Ecology of educational management (Professor Richards)
- ORLD 4500. Special topics in higher and adult education: Financing of higher education (Professor Levin)


## Language, Literacy, and Technology

ITSL 4011. Introduction to computers, language, and literacy (2-3)
Professor K leifgen. Sociocultural implications of computer use in education; viability of software use in the light of language learning theories; eval uation of electronic materials for use by bilingual, ESL, and native and foreign-language learners. M aterial fee: $\$ 20$.

ITSL 4019. Orality, literacy, and technology (2-3)
Faculty. An examination of literacy as a set of social practices, embodied both in the traditional practice of oral culture and in the rapidly emerging practices of technological culture. M aterials fee: $\$ 20$.

## ITSL 4190. Communicative

 practices: intercultural perspectives (2-3)Professor K leifgen. A topical course exploring language as situated social practice and focusing on communication within and across national boundaries. Domains examined include schooling, work, community, and the public arena. Both spoken and written modes are considered.

ITSL 4801. African-A merican language and communication (non-credit or 1)
Faculty. An exploration of the varieties of A frican American Ianguage use, with particular attention to the communicative functions they serve.

ITSL 4811-ITSL 4813. Computer based language teaching (noncredit or 1 each course) Professor K leifgen. Theoretical rationale. Examination of lesson design, organization and operation of language instructional course ware for first and second language learners. A ssumes no computing experience. Courses meet on weekends.

- ITSL 4811. Computers, Ianguage and children
- ITSL 4812. Computers for high school and adult language learners
- ITSL 4813. Special topics in computers and language

MSTU 4049. Computers and writing (2-3)
Professor K leifgen. An examination of the relationship between computers and the writing process. The course explores the effects of electronic text on traditional notions of text, literacy, and communication. A ssumes no computing experience. Lab fee: $\$ 25$.

ITSL 5519. Research in language and literacy I (2-3)
Faculty. Research in such areas as spatial, temporal, textual, and social deixis in language, with particular attention to culturally variant norms and their implications for educational practice. M aterials fee: $\$ 20$.

ITSL 5520. Research in language and literacy II (2-3)
Faculty. Research in the varieties of language used in literate expression, with particular attention to culturally variant norms and their implications for educational practice. M aterials fee: \$20.

## ITSL 6032. Research issues in

 computers, language, and literacy (3)Professor K leifgen. Permission required. Research in the use of digital technology for language and literacy development. Techniques of computerized anal ysis. N ew research directions. M aterials fee: $\$ 20$.

## ITSL 6125. Research issues in

 communicative practices (3) Professor K Ieifgen. Permission required. A critical review of selected research directions and paradigms for the analysis of spoken and written communication.
## Peace Education

ITSF 4603. Human and social dimensions of peace (1-2) Professors R eardon and Snauwaert. Focuses on issues and problems of human rights, global ethics, gender issues, and various aspects of structural and cultural violence. Offered in distinct versions in fall and spring; one emphasizing ethical
issues and the other gender perspectives. A nother course in human rights may be substituted for the specialization in peace education.

ITSF 4611. Education for global security (1-3)
Professor Reardon. Explores issues of peace and violence from various perspectives, among them feminism and environment, emphasizing alternative analytic frameworks and various values systems.

ITSF 4613. Fundamental concepts in peace education (1-2) Professor Reardon. Introduction to theory and practice and the international literature of the field as it has been developed over the past three decades.

ITSF 4614. The U nited $N$ ations as peace educator (2-3)
Faculty. This course reviews and assesses the work of the world organization and how it facilitates the learning necessary to an inte grated global society. It is problem focused and the focus problem is different each semester. (This course takes place partly on site at the UN )

ITSF 4800. International Institute on Peace Education (1-2) Professor Reardon. (Summer optional) An intensive course of full days over one or two weeks, focusing on a specific peach education issue or theme; internationally staffed with international participants; offered jointly with cooperating universities in other countries.

ORLJ 5340. Basic practicum in conflict resolution and mediation skills

ORLJ 6350. Advanced practicum in conflict resolution and mediation

ORLJ 6040. Fundamentals of cooperation, conflict resolution, and mediation in different institutional contexts

Anthropology and<br>Education<br>(Code: TFA)<br>Program Coordinator:<br>Professor Lambros Comitas

Applied Anthropology (Code: TFO)
Program Coordinator:
Professor Lambros Comitas

## D egrees Offered:

## Anthropology and Education

Master of Arts (M.A.)
Master of Education (Ed.M.)
Doctor of Education (Ed.D.)
Doctor of Philosophy (Ph.D.)

## Applied Anthropology

Doctor of Philosophy (Ph.D.)

## Spedal Application

Requirements:
A pplications are reviewed for these programs on an ongoing basis. Preference in scholarship awards will be for those applicants who meet the priority deadline.

The GRE General Test is required, except of interna tional students for whom the TOEFL is required. If the applicant will be in or near New York City, an interview with one of the program faculty is recommended.

## Program D escriptions:

Teachers Col lege has been a pioneer in both Anthropology and Education and A pplied Anthropology. These two programs function as one entity and provide a unique research training experience for a very select group of students. This highly personal academic environment within the larger university complex maximizes the interaction between students
and faculty while offering a variety of scholarly and professional resources.

Both programs prepare students to enter current research and policy conversations about education and the application of anthropol ogy to other fields. The programs are built on the premise that one can apply anthropol ogy only to the extent that one has been rigorously trained in the theory and methodology of the discipline.

Theoretical emphasis is given to social and political processes, cultural theory, and psychological anthropology-all from a strong cross-cultural and comparative perspective. M ethodol ogical emphasis is placed on intensive and systematic ethnography. The faculty has a distinguished record of publications and research projects, most of which has been conducted in the U inited States, Africa, the Caribbean, South America, and Europe.

## Anthropology and Education

The program in Anthropology and Education offers a disciplinary approach which carefully explores and contributes to the anal ysis and understanding of educational processes in schools and classrooms, in families, on street corners, in community centers, in churches and in all settings where education may proceed. The department houses the largest group of anthropol ogists of education to be found in any university in the world.

## Applied Anthropolgy (a joint program)

In 1968, Teachers College and the G raduate School of Arts and Sciences of Columbia University initiated and implemented aJ oint Program of

Applied Anthropology. This joint venture trains graduate students registered at either graduate school. By this agree ment, all applied anthropological training at Columbia University is administered through Teachers College. The Joint Program offers a course of study and thorough training in applied anthropology that is certified by both institutions, and capitalizes on the strength of the university's faculty.

This program focuses on the complex issues involved in applying anthropological knowledge and approaches to matters of policy concern in medicine, psychiatry, psychoanalysis, economic and community devel opment, educa tion, businesses and corporations, institutional programs, and ecological and environmental change.

## Resources

Both programs are conducted in collaboration with the Department of Anthropology at Columbia University, Columbia's G raduate School of Arts and Sciences, the School of International and Public Affairs, and other professional schools and institutions of the University (School of Public H eal th, Lamont-D oherty Laboratory, etc.).

In addition, our location in N ew York City allows students easy access to a myriad of prestigious academic and research institutions and provides a natural laboratory for student research on ethnicity, migra tion, and urban life. Through the Inter-U niversity Doctoral Consortium, students may take courses to fulfill their Teachers College program requirements at the Graduate School and the University Center of the City University of New York, Ford-
ham University, the N ew School for Social Research, and N ew York University.

M ost of the programs' graduates find academic posts and administrative positions in colleges, universities, and professional schools. Others locate in federal and international agencies, research institutes, private foundations, medical institutions, consulting firms, and social welfare and community service organizations in the United States and abroad.

## D egree Requirements:

## Anthropology and Education

## M aster of Arts

The M aster of A rts program in Anthropology and Education is designed for students who are planning to enter one of the doctoral programs, as well as those seeking a terminal master's degree. Administrators, counsel ors, eval uators, research associates, and teachers in elementary and secondary schools can improve their work through learning how anthropological methods are applied to educational problems, policy, and practice.

The program requires at least four courses (12 points) in anthropol ogy offered through the Department. The program should include at least one colloquium or seminar level course; three courses (6-9 points) in the fields founda tional to anthropology (economics, history, linguistics, phil osophy, psychology, sociology); and four other courses (9-12 points) that directly contribute to the emerging professional interest of the candidate. The M.A. program requires an integrative project as well as an internship in addition to the 32-point program.

## M aster of Education

The M aster of Education's degree program is flexible, al lowing students to address various professional concerns, satisfy diverse academic needs, and enhance professional skills. In the Ed.M. program, Teacher Certification may al so be achieved in conjunction with other teacher education programs in the department and in the college.

Minimally, candidates for the Ed.M. degree in anthropology and education take 21 points in courses related to the main fields of the discipline, including at least 15 points in sociocultural anthropology. A minimum of three courses (6-9 points) must betaken in fields foundational to anthropology (economics, history, linguistics, phil osophy, psychology, sociology.) An additional 30-36 points must also be taken to complete the course of study.

These courses should be chosen so as to enhance the professional preparation of the student in his or her expected field of practice. Up to 30 of the required 60 points may be transferred from previous course work to the extent that they fulfill some of the requirements listed above. Students are al so required to conduct an integra tive project in addition to the 60 points of course work.

## Doctoral Degrees

The Doctor of Education and Doctor of Philosophy degree tracks are for students who plan to engage in scholarly writing and research, applied research and evaluation, or teaching and administrative responsibilities at colleges, universities, professional schools of education and medicine, research institutes, or state,
federal, and international agencies and bureaus. The following are required of students in both the Ed.D. and Ph.D. tracks:

Certification Requirements Certification is the means of indicating that the student is regarded as having attained the expected competencies outlined in the course requirements above. An overall Grade Average of $B+$ is expected. Students must also completea written examination on anthropology and education.

Dissertation Requirements After passing the certification examination, the candidate should begin writing a dissertation proposal. One or two years of anthropol ogical field research is required for the collection of original field data based on the dissertation research proposal. A fter the proposal is approved by the Department, the candidate is required to register for continuous dissertation advi sement until the dissertation has received final approval.

## Doctor of Education

A minimum of 90 points of acceptable graduate credit is required for the D octor of Education (Ed.D.), 45 of which must be completed through Teachers College registration. Forty-two points of major courses are required. These courses prepare students with the requisite knowledge of epistemol ogi cal, theoretical, methodol ogical, ethnographic, and substantive areas of anthropology. They aim to develop competency in the discipline, while addressing the specific intellectual interests of the student. Fifteen points in research methods and statistical courses are also required.

The knowledge of education and educational institutions, of persons and the learning process, and the various forms of measurement and evaluation in cognate areas prepares program graduates with the knowledge and skills necessary for researching and working in a variety of formal and non-formal educational settings through 18 points of broad and basic areas.

This leaves 15 points of electives to increase competence in comparative, regional or international studies, or to enhance technical skills used in conjunction with but outside the major course of study. At least three of these courses ( $8-9$ points) must be taken in fields foundational to anthropology (economics, history, linguistics, philosophy, psychology, sociol ogy.)

## Doctor of Philosophy

Each student develops, in colIaboration with an advisor, a program of study in anthropology designed to establish a high level of competency. A minimum of 75 points of acceptable graduate credit is required for the Doctor of Philosophy (Ph.D.). Of these 75 points, a maximum of 45 points can be completed through another Faculty of Columbia University, or a maximum of 30 points may be transferred or earned in courses from other recognized graduate schools. A total of 40-45 points of major courses is required.

These courses prepare students with the requisite knowledge of epistemol ogical, theoretical, methodological, ethnographic, and substantive areas of anthropol ogy. They aim to develop competency in the discipline, while addressing the specific intellectual interests of the student.

At least 15 points of the anthropology requirements must be taken within the program. A minimum of 25 points of the 40 points required in anthropology must betaken at Teachers College, or in other Faculties of Columbia University. Within the major course requirements, 15 points in required courses must be taken: the four semester sequence of colloquiums and summer field research (a minimum of 12 points) and an independent study (3 points) used in preparation for the certification examination and dissertation proposal. Fifteen points in research methods and statistical courses are al so required. The remaining 15 points of electives are used to increase competence in comparative, regional or international studies, or to enhance technical skills used in conjunction with but outside the major course of study. At least three of these courses (8-9 points) must be taken in fields foundational to anthropology (economics, history, linguistics, phil osophy, psychol ogy, sociology.) Of the 75 graduate points required for the degree, a minimum of 45 must be taken for an evaluative letter grade.

F oreign Language Requirement Each candidate must satisfy the foreign language requirement by demonstrating proficiency in two schol arly languages, or one schol arly language and one field language, or one scholarly language and a two semester sequence of prescribed statistics courses.

## Applied Anthropology

## Doctor of Philosophy

Each student, in collaboration with an advisor, develops a program of study in anthropology designed to establish a high
level of competency. A minimum of 75 points of acceptable graduate credit is required for the Doctor of Philosophy (Ph.D.).

Of these 75 points, a maximum of 45 points can be completed through another Faculty of Columbia U niversity, or a maximum of 30 points may be transferred or earned in courses from other recognized graduate schools. Forty to forty-five points of major courses are required.

These courses prepare students with the requisite knowledge of epistemological, theoretical, methodological, ethnographic, and substantive areas of anthropology. They aim to develop competency in the discipline, while addressing the specific intellectual interests of the student.

At least 15 points of the anthropology requirements must be taken within the program. A minimum of 25 points of the 40 points required in anthropology must be taken at Teachers College, or in other Faculties of Columbia U niversity. Up to 15 points in anthropology courses may betaken at other graduate institutions who are members of the Inter-U niversity Doctoral Consortium, to satisfy major course requirements.

Within the major course requirements, 30 points in required courses must be taken: the four semester sequence of colloquiums and summer field research (a minimum of 12 points); an additional theory course outside of the first semester colloquium (3 points); two ethnography courses, one within and one outside of one's interest (6 points); two sub-discipline courses (6 points), one
in linguistics and one from either archaeol ogy or physical anthropology; and an independent study (3 points) used in preparation for the certification examination and dissertation proposal.

Fifteen (15) points in research methods and statistical courses are also required. The remaining 15 points of electives are used to increase competence in comparative, regional or international studies, or to enhance technical skills used in conjunction with but outside the maj or course of study. At least three of these courses (9 points) must be taken in fields foundational to anthropology (economics, history, linguistics, philosophy, psychology, sociology.) Of the 75 graduate points required for the degree, a minimum of 45 must betaken for an evaluative letter grade.

Foreign Language Requirement Each candidate must satisfy the foreign language requirement by demonstrating proficiency in two schol arly languages, or one scholarly language and one field language, or one scholarly language and a two semester sequence of prescribed statistics courses.

## Courses:

## Introductory Courses

ITSF 4003. American culture and education (3)
Professor Varenne. An orientation to A merican culture and education.

ITSF 4010. Cultural and social bases of education (3-4) Professor Comitas. A nal yses of basic anthropological concepts, with particular reference to the sociocultural context of education and the role of educational institutions in community, national, and regional development. Four-point enrollment requires attendance at film showings before or after class
and at discussion sessions held at hours to be arranged.

## ITSF 4011. Social context of

 education (3-4)Professor Bond. The exploration of anthropological and social science concepts for the anal ysis of educa tional, cultural, and social institutions, organizations and processes of different peoples of the world. Four-point enrollment requires attendance at film showings before or after class and additional discussion sessions held at hours to be arranged.

ITSF 4012. Cross-cultural studies of learning (3-4)
Professor H arrington. A nal yses of basic anthropological concepts, with particular reference to the influence of cultures and subcultures on the learning process, to education in multicultural classrooms and to the relevance of psychological anthropology to educa tional issues. Four-point enrollment requires attendance at film showings before or after class and additional discussion sessions held at hours to be arranged.

ITSF 4014. Urban situations and education (3-4)
Professor Bond. An introduction to the anthropological study of the sociocultural patterns of popula tions residing in urban settings, with emphasis on domestic, ethnic, class, and educational relationships.

## ITSF 4016. Culture and society

 in A frica (3)Professor Bond. A general survey of sub-Saharan Africa, using contributions from theoretical approaches to anthropol ogical research in the area. Emphasis on socioeconomic, ideological and religious, educational, and political analysis of A frican communities.

ITSF 4017. A nthropological perspectives on homelessness and social control (3)
Faculty. Theoretical and ethnographic anal yses of contemporary forms of social exclusion in urban settings. Emphasis on the interaction between institutional arrangements and the experience of homelessness.

ITSF 4018. Anthropology and development in A frica (3)
Professor Bond. This course considers issues and problems of development in sub-Saharan Africa. It examines specific development projects from different theoretical and empirical perspectives.

## Intermediate Courses

ITSF 5000. Methods of inquiry: ethnography and participant observation (3)
Professor H arrington. The methods of the behavioral and social sciences as they relate to ethnography and participant observation Emphasis on the role of theory, characteristics and relative efficiencies of various research techniques, and the importance of integrated research design.

## ITSF 5001. Ethnography and

 participant observation: fieldwork, analysis, reporting (3) Professor Varenne. Permission required. ITSF5000 or equival ent required. Emphasis on the issues arising out of ethnographic research as they arise during a pilot project from entry into the field to the writing of the results.
## ITSF 5002. Ethnography and participant observation: comparative and qualitative analysis

 (3)Professor H arrington. Permission required. ITSF5000 or equival ent required. Issues of comparative and quantitative anal ysis of data generated by ethnographic/participant observation inquiries.

## ITSF 5010. Social organization

 and comparative institutions (3)Professor Bond. An introduction to selected theories of social orga nization and their application to the analysis of small-scal e society as a background to the anal ysis of social and educational problems.

## ITSF 5011. Process and change

 in Africa (3)Professor Bond. A nthropological studies of social systems, cultural change, and development. Special emphasis on the role of politics, religion, economics, and education in change processes.

ITSF 5012. Culture and society in the Caribbean (3)
Professor Comitas. Detailed survey, utilizing contributions from theoretical approaches to anthropological research in the area. Emphasis on socioeconomics, community studies, and sociopolitical anal yses.

ITSF 5013. Psychological anthropology (3)
Professor H arrington. The concepts, theories, and methods of psychological anthropology. Crosscultural studies of learning processes. Emphasis on recent work in the field, problems of cross-cultural methodology, and the study of socialization.

ITSF 5014. Symbolic anthropology (3)
Professor Varenne. An introduction to the anthropological study of symbols and meaning with emphasis on the relation between cultural constructions of the world and action in the world.

ITSF 5015. Political anthropology: labor, race, and belief (3) Professor Bond. This course considers the theories and concepts used by anthropologists and other social scientists in the anal ysis of political behavior and institutions. It emphasizes the comparative study of political systems, movements, and processes within the context of rural and urban situations.

ITSF 5016. Ethnography of the classroom (3)
Professor Varenne. Introduction to the ethnographic investigation of classrooms and to the educational policy issues it addresses.

ITSF 5017. Anthropology and the law (3)
Faculty. A nal ysis of various legal systems in state and statel ess societies with case materials and other readings used to illuminate basic assumptions behind "legal" processes. In this context, what American lawyers mean when they say that their education and training enables them to "think like lawyers" is examined.

ITSF5018. Drugs and society (3) Professor Comitas. Utilizing theoretical and methodological perspectives from social and cultural anthropol ogy, this course is designed to explore the contextual dimensions of illicit drug use as well as other drug-related issues. A comparative, cross-cultural approach will be utilized and case material drawn from traditional as well as modern settings.

ITSF5020. Practicum in anthropological field techniques
Professor Comitas. For anthropologists and non-anthropol ogists contemplating independent, qualitative research, course provides hands-on experience in techniques for generating, recording, and managing anthropological data in the field.

## Colloquia

ITSF 5610. First-year colloquium in applied anthropology (3) Professors Bond and Varenne. Permission required. This is a yearlong critical review of important works in anthropology and education and applied anthropology. During the spring semester students present proposals for their summer fieldwork before the members of both programs. Required of, and open only to, first-year doctoral students. M eets concurrently with MSTF 5611 during the spring semester.

ITSF 5611. Second-year colloquium in anthropological method (3)
Professors Comitas and H arrington. Permission required. This is a year-long review of the methods of field research and data anal ysis in anthropology, with special reference to educational systems and processes. N etwork anal ysis, systematic observation, quantification procedures, participant observation, ethnographic interview, use of film and videotape, cross-cultural survey techniques, and testing and experimental design. During the spring semester, students report on their completed summer fieldwork before the members of
both programs. Required of, and open only to, second-year doctoral students. M eets concurrently with M STF 5610 during the spring semester.

## Research Seminars

ITSF 6511. Seminar in psychological anthropology (3)
Professor H arrington. Permission required. Prerequisite: ITSF 5013.

ITSF 6512. Social theory and structure (3)
Professor Bond. Investigation of issues and problems in social theory through the anal ysis of rel evant literature in the social sciences.

ITSF 6513. Topics in anthropology and education: religion and politics in contemporary A frica (1-3)
Professor Bond. Permission required.

ITSF 6514. Topics in anthropology and education: cultural analysis (1-3)
Professor Varenne. Permission required.

ITSF 6515. Topics in anthropology and education: resilience in at-risk population (1-3)
Professor H arrington. Permission required.

ITSF 6516. Topics in anthropology and education: social structure (1-3)
Professor Comitas. Permission required.

ITSF 6911. Work group in psychological anthropology
Professor H arrington. This work group meets every other week to discuss current issues in psychological anthropology. It also discusses and reviews current research and proposals for research of work group members, including faculty, alumni, and doctoral students concentrating in psychological anthropology.

## Individualized Studies

Advanced students may register for intensive individual study of some aspect of their specialization. Registration is only by permission
of the instructor under whose guidance the work will be undertaken. Times for individual conferences will be arranged. Enrollment may be for 1 or more points each term, and registration is not limited to one or two terms.

## Bilingual/Bicultural

## Education

(Code: TLB)
Program Coordinator: Professor
M aria-Torres-Guzman (on
sabbatical 2001-2002)
Acting Coordinator: Professor
Lourdes Diaz-Soto

## D egree Offered:

M aster of Arts (M.A.)

## Spedial Application

Requirements/I nformation: In addition to the Teachers College admissi ons application, applicants to the M.A. program in Bilingual/Bicultural Education or those applicants who wish to add a bilingual emphasis to a cooperating Teachers College program must submit:

- Program application (available from the Program office)
- Language proficiency examination*
- Interview (the Program office will contact you)
*Fluency in either Chinese, H aitian Creole, K orean, Russian, or Spanish is required for the Program in Bilingual/ Bicultural Education. Students who were educated at a college or university where the language of instruction is English must submit scores from a language proficiency exam. To schedule an examination, contact:

Foreign Language Proficiency Testing Service
N ew York University
School of Continuing and
Professional Studies
48 Cooper Square, R oom 107

International and Transcultural Studies

N ew York, N Y 10003-7154
212-998-7030

For further program information, contact the Program in Bilingual/Bicultural Education at Teachers College, Box 122, 525 W est 120 Street, N ew York, N Y 10027, tel ephone: 212-678-3758, e-mail: bilingual-bicultural@exchange. tc.columbia.edu.

A student in this program who wants to qual ify for N ew Y ork State teaching certification must complete the program and file for certification prior to February 1, 2004. Teachers College is developing new programs to meet regulations that go into effect after February 1, 2004. These programs will be outlined in next year's catal og.

## Program D escription:

Teachers and administrators in school systems across the country and around the world are facing the challenge of educating growing numbers of linguistically and culturally diverse student populations. In an effort to prepare these pupils for full participation in an increasingly literate, technological, and interdependent world community, many schools are offering bilingual/ bicultural instruction.

Teachers College has responded to the need for professional s prepared to provide services in bilingual/multicultural school settings by offering a program of studies designed to prepare graduates for teaching, administrative, and related roles in bilingual/bicultural instructional settings. The program is interdisciplinary in nature.

## D egre Requirements

## Master of Arts

The M.A. student must complete a course of study in one of two routes: in-service or preservice. Pre-service students must meet a minimum of 40 points and in-service students a minimum of 33 points. The pre-service program is available to the Spanish language group only; the in-service program is available to all the language groups listed above.

The M.A. program meets all of the requirements for el ementary and bilingual state certification. In addition to departmental requirements, M.A. degree candidates are required to complete an integrative project. Students should choose their program of study in consultation with an academic advisor.

## Bilingual/Bicultural Education Emphasis

Students may, if approved, be admitted to a cooperating degree program with an emphasis in Bilingual/Bicultural Education. The substance and scope of courses within the emphasis (please see cooperating programs below) are contingent on the degree sought, on the major field the student has chosen, and on whether the student wishes to meet bilingual teacher certification requirements and, thus, is highly individualized.

Students may apply for a bilingual emphasis in any of the programs and/or degree levels listed below. Emphasis code "B" must be specified with the program code on the application. Many of the cooperating programs also lead to N ew York State certification. Please refer to the description of the participating degree program to determine application deadlines.

Participating Degree Programs
with an Emphasis in Bilingual Education:
TABB Educational Administration (M.A., Ed.M., Ed.D.)
TCAB M athematics Education (M.A., M.S., Ed.M., Ed.D.)
TCEB Elementary School Science Education (M.A., M.S., Ed.M., Ed.D.)
TCH B Secondary School Science Education (M.A., M.S., Ed.M., Ed.D.)

TCTB Education of Teachers of Science (Ed.M., Ed.D.)
TCX B Supervision in Science Education (M.A., M.S., Ed.M., Ed.D.)

TDAB Adult and Continuing Education (M.A., Ed.D.)
TEBB Blind and Visual Impairment (M.A., Ed.D.)
TEDB H earing Impairment (M.A., Ed.D.)

TEGB Guidance and Rehabilitation (M.A.)
TFAB Anthropology and Education (M.A., Ed.M., Ed.D.)
TFGB Politics and Educa tion (M.A., Ed.M., Ed.D.)
TFH B History and Educa tion (M.A., Ed.M., Ed.D.)
TFIB Comparative Education (M.A., Ed.M., Ed.D.)
TFSB Sociology and Education (M.A., Ed.M.)
TFZB International Educational Development (M.A., Ed.M., Ed.D.)

TGMB Music Education (M.A., Ed.M., Ed.D., Ed.DCT)
TJEB Counseling Psychology (Ed.M.)

TK EB Educational Psychology H uman Cognition and Learning (M.A., Ed.D.)

TLAB Applied Linguistics (M.A., Ed.M., Ed.D.)

TLEB Teaching of English
(M.A., Ed.M., Ed.D., Ed.DCT)
TLSB Teaching of Spanish (M.A., Ed.M., Ed.D., Ed.DCT)*
TLXB TESOL-Japan
TLZB Teaching of English to Speakers of Other Languages (M.A., Ed.M., Ed.D., Ed.DCT)
TMMB Measurement and Eval uation: (Ed.M.)
TY DB Early Childhood Education (M.A., Ed.M., Ed.D.)
TYPB Elementary/Childhood Education-Preservice (M.A.)
TYZB Curriculum and Teaching (M.A., Ed.M., Ed.D.)
*Currently this program is not admitting students. Please contact the Office of Admissions at 212-678-3710 for updated information.

## Courses:

## ITSL 4020. Language and the

 bilingual special education child: the foundations (2-3) Faculty. This course examines theories and principles of practice from the fiel ds of linguistics, bilingual education, and special education as they apply to bilingual special education. It introduces a cross-disciplinary approach to instructional planning for bilingual children with handicapping conditions.ITSL 4021. Foundations of bilingual/bicultural education (3)
Faculty. Historical review of bilingual educational practices in the U nited States. A nal ysis of linguistic, psychol ogical, social, cultural, political, and judicial underpinnings of current practices in the fied.

ITSL 4024. Linguistic founda tions of bilingual/bicultural education (3)
Faculty. Introduction to the study of bilingual ism. A pplication of sociolinguistic, psycholinguistic, and applied linguistic theory to the design and implementation of bilingual/bicultural educational models and materials. Students completing a concentration in bilingual educa tion may take ITSL 4000 or ITSL 4001 in lieu of this course.

ITSL 4025. Cross-cultural communication and classroom ecology (3)
Professor Torres-Guzman. Examination of the influence of culture in the design and implementation of school instruction. Identification of salient theoretical issues related to culture and social organization as they relate to the education of ethnolinguistic and minority children. Exploration of the learning/teaching processes within the context of multicultural and bilingual classroom settings from a cultural perspective. Reflection upon the role of the teacher in creating cultural learning environments. Survey of research approaches which serve as tools to examine classroom interaction.

ITSL 4026. Social and cultural dimensions of bilingual education (3)
Faculty. Bilingual education in a cross-cultural perspective. A critical analysis of selected issues in bilingual education in the context of society and culture, drawing on sociological and anthropological concepts as they relate to in-school and out-of-school language learning. Special attention is directed to the role of bilingual ism as a major resource in education for democratic plural ism and intercultural understanding.

ITSL 4027. Current topics in bilingualism and bilingual/ bicultural education (1-3) Professor Torres-Guzman. Studies of selected topics in bilingual ism and bilingual/bicultural education, with special attention directed to current policy and research issues and to social and political developments in the U nited States.

ITSL 4028. Teaching reading in bilingual settings (3)
Faculty. Prerequisite: completion of at least one graduate or undergraduate introductory course in reading and TL4021. An overview of approaches to teaching reading in bilingual settings. Techniques for assessing pupil readiness for reading in the native or second language. D evel opment of techniques for teaching reading in the native language. Criteria for introduction of reading in the second I anguage and for selection of culturally appropriate materials. Techniques to manage dual Ianguage reading programs.

ITSL 4121-ITSL 4126. Bilingual/bicultural curriculum design: cognitive, linguistic, and cultural considerations

## (3 each course)

Faculty. Permission required. Pre requisites: (1) an introductory course in curriculum design and a course in foundations of bilingual/bicultural education; (2) complete proficiency in the English language and one additional language. A critical anal ysis of linguistic, cognitive, and cultural considerations in the design of bilingual/bicultural curriculum. Offered in six sections, contingent on projected enrollments for each language group.

- ITSL 4121. Multilingual (all language groups)
- ITSL 4122. Spanish
- ITSL 4123. Chinese
- ITSL 4124 K orean
-ITSL 4125. Russian
- ITSL 4126. H aitian-Creole


## ITSL 4127-ITSL 4132. Bilin-

 gual/bicultural methods and materials: criteria for design and selection (3 each course) Faculty. Permission required. Prerequisites: (1) ITSL 4121-ITSL 4126 and (2) proficiency in English and another language (Spanish, Chinese, K orean, H aitian Creole, R ussian). A nal ysis, creation, and development of appropriate bilingual/ bicultural instructional methods and materials for use in the language arts and content areas, with application to multimedia approaches; critique of current commercially prepared prod-ucts; review and survey of approaches to development in the first/second language (Spanish, Russian, Chinese, K orean, H aitian Creole) and English; consideration and preparation of instructional al ternatives to texts. Offered in six specific language groups.

- ITSL 4127. Multilingual (all language groups)
- ITSL 4128. Spanish
- ITSL 4129. Chinese
- ITSL 4130. K orean
- ITSL 4131. Russian
- ITSL 4132. Haitian Creole


## ITSL 4133-ITSL 4137. Curriculum and methods for bilingual teachers (non-credit or 3)

 Faculty. Permission required. Prerequisites: ITSL 4021 and ITSL 4121-ITSL 4126. Intensive review of curriculum and methods appropriate to the teaching of the sub-ject areas in bilingual instructional settings. Offered as needed for those wishing $N-9$ bilingual teacher certification.

- ITSL 4133. Science
- ITSL 4134. Mathematics
- ITSL 4135. Language arts
- ITSL 4136. Foreign languages
- ITSL 4137. Social studies


## ITSL 4323. Practicum in bilingual/bicultural education (3)

 Faculty. Permission required. Practicum for experienced teachers in bilingual settings.
## ITSL 4720. Student teaching in bilingual/bicultural education (3-4)

Faculty. Permission required. Student teaching in a bilingual educational setting on an elementary or secondary level. Experiences include first language, TESOL, content area observation, and supervised practice.

## ITSL 5021. A ssessment and evaluation in bilingual educa-

 tion (3)Faculty. Permission required. Pre requisite: introductory course in educational or psychological assessment. Survey of tools and techniques used in different types of assessment and evaluation including linguistic, psychoeducational, and programmatic areas;
principles, limitations, and alternatives applied to the above as they pertain to effective bilingual programs. Emphasis on methods of assessment and evaluation that can be used by the teacher/supervisor with the limited English proficiency (LEP) child.

ITSL 5022. Administration of bilingual programs (3)
Faculty. Focus on managerial, legal, and financial issues in bilingual education, with particular emphasis on urban and suburban settings at elementary and secondary school levels.

ITSL 5023. Guidance and counseling of bilingual/bicultural children, adolescents and their families (3)
Faculty. Guidance and counseling theory, research and practice regarding bilingual and racially/ culturally diverse children, adolescents and their families. The course examines paradigms used to understand the behavior of bilingual/bicultural children, the impact of various factors on their functioning, models for assessing their functioning, and preventive and rehabilitative interventions to effect change.

ITSL 5024. Bilingual/Multilingual education: International perspectives (3)
Torres-Guzman. A survey of bilingual/multilingual educational policies and practices in highly industrialized and developing nations. W hile such models and designs are anal yzed from a comparative educational perspective, much attention is given to the ethnolinguistic, social, economic, and political nuances of each nation.

## ITSL 5511. Bilingual/multicultural educational leadership

 (1-3)Faculty. Permission required. This seminar will focus on a) integrating the knowledge of educational administration within the context of bilingual/bicultural environments, b) integrating theory and practice, c) defining leadership needs for bilingual/bicultural settings and d) reflecting on the practice of educational administration.

International and Transcultural Studies

ITSL 5512. Bilingual/multicultural education program development and change theory (1-3) Faculty. Permission required. Analysis of changetheory with emphasis on factors affecting development, implementation, staffing, and administration of bilingual/bicultural programs.

ITSL 5513. Staff development in multilingual/multicultural settings (3)
Professor Torres-Guzman. Permission required. Critical study of theory and practice of staff development in multilingual/multicultural settings.

ITSL 6521. Seminar in bilingualism and bilingual education (3)
Faculty. A review of research in bilingual/bicultural education from an interdisciplinary perspective. The focus is on the analysis of research, evaluation methodologies and findings, and their potential application to current theory and practice.

ITSL 5202. Fieldwork (1-6 each course)
Permission required. Opportunity for qualified students, individually or in small groups, to develop and pursue projects, in consultation with an advisor, in schools, communities, and other field settings.

ITSL 6202. Advanced fieldw ork (1-6 each course)
Permission required.
ITSL 5201-ITSL 5207. Fieldwork (1-6 each course)
Permission required. Opportunity for qual ified students, individually or in small groups, to develop and pursue projects, in consultation with an advisor, in schools, communities, and other field settings. Thetitles of ITSL 5201-ITSL 5207 parallel those of ITSL 4901ITSL 4907.

ITSL 6201-ITSL 6207. A dvanced
fieldwork (1-6 each course)
Permission required. See description for ITSL 5201-ITSL 5207.

ITSL 6401-ITSL 6407. Internship in college teaching (1-6 each course)
Permission required. Occasional opportunities in college programs in areas represented by the department. Students must inquire to see if opportunities are available during any given semester. Course titles parallel those of ITSL 4901ITSL 4907.

## Courses Open to Non-Majors

A number of departmental offerings are suitable for non-majors because of their non-technical nature. Consult advisors about other courses not listed.

- ITSL 4021. Foundations of bilingual/bicultural education (3)
- ITSL 4025. Cross-cultural communication and classroom ecology (3)
- ITSL 4027. Current topics in bilingualism and bilingual/ bicultural education (1-3)
- ITSL 5023. Guidance techniques for the bilingual/ bicultural child and family (3)


## Economics and

## Education

(Code: TFE)
Program Coordinator: Professors Thomas B ailey

## D egrees Offered:

M aster of Arts (M.A.),
M aster of Education (Ed.M.)
Doctor of Philosophy (Ph.D.)
(Ed. Policy option available)

## Special Application Requirements/Information:

 The GRE General Test is required for the Ph.D. Program. Some background in economics is preferred.Applications are reviewed on an ongoing basis, and will be reviewed throughout the year. Preference in scholarship awards will be for those applicants who meet the priority deadline.

## Program D escription:

Economics is a powerful tool for scholars and educational practitioners who wish to devel op a better understanding of educational institutions and decisions. The program in Economics and Education at Teachers College was one of the first of its kind and has maintained its position of leadership in this rapidly growing field.

Graduates hold teaching positions in university and college faculties, and administrative or research positions in a variety of settings, including foundations, government departments, and international agencies. Increasingly, schools and universities are appointing economists with a special appreciation of educational goals and procedures to conduct institutional research. Some have gone into private business.

Students in the program develop an array of skills in the application of economic concepts and theory, in benefitcost anal ysis and other eval uative procedures, and in the statistical treatment of mass data. Within broad college and university guidelines, students may pursue individually designed programs that satisfy their unique interests and career objectives.

With the help of an academic advisor, students select courses from those offered within the program of economics and education and supplement these with courses outside the
department, including courses offered in other schools of Columbia U niversity.

## M aster of Arts

The objective of the 32 point Program in Economics and Education with a specialization in Educational Policy is to equip educational professionals and policy-makers with the skills required for the effective design and implementation of educational policy. The program has a strong emphasis on the financial, managerial, and devel opmental challenges facing educational institutions in developing countries and economies in transition.

The Program can be completed within one year and is highly focused to accommodate the demands of promising professionals and policy-makers. The course of study is designed to convey the lessons of educational research and practice as well as management science through the intensi ve study of actual educational policy successes and failures. The curriculum of the Program assumes that students possess some measure of intellectual maturity and exposure to the problems of educational policy-making.

The Program begins in September and concludes in August of the following year. It consists of two semesters and a summer session.

The curriculum of the program aims to:

- build students' technical competence in the basic tools of educational management and policy making
- provide the academic and professional environment for students to apply these skills
- educate students about the global educational Iandscape, including current thinking on educational reform and the financing of education.

In order to achieve these goals, the program begins in September with an intensive twosemester session in which students are taught skills that are an essential building block for their career development. Students will take courses in economic and policy analysis in education, applied statistics, management tool s in education, development issues and educational policy, and in related fields as electives. In the summer session, students will apply the knowledge acquired during the academic year in a master's project.

Currently, a limited number of schol arships are available through the J oint J apan/W orld Bank Graduate Scholarship Program. For information about the program, call the Program coordinator.

A student may al so pursue a M aster of Arts program in Economics and Education, without a specialization in Educational Policy. The student will design that program under the guidance of the academic advisor.

## Master of Education

This 60 point program is intended for individual s interested in the applications and practices in the economics of education. The program is flexible and is designed by the student, under the guidance of the academic advisor.

## Doctor of Philosophy

This 75 point program is intended for individuals who want to acquire advanced training in the theory, methods, and practices in the economics of education. It is a selective program to prepare individuals for leadership roles in teaching, research, or administrative settings.

The coursework for this program consists of three parts: core courses, courses in research methods, and courses in a spe cialized area of study. The avail able special ized areas include: education and economic devel opment, education and transition to work, educa tional finance, economic evaluation and cost anal ysis in education, economics of urban and minority education, economics of educational technology, teachers markets, and others.

## Courses:

ITSF 4050. Economics of educa tion (3)
Professors Bailey, Levin and Tsang. Teaches the basic economic concepts and methods to be used for further study and analysis of educational finance, education and inequality, education and economic growth, the impact of educational policies on educational outcomes, school reform, and school choice.

ITSF 4051. Education and economic development (3) Professors Rivera-Batiz and Tsang. This course examines the links between education and various aspects of economic development. Topics include the impact of human capital accumulation on economic growth, the educational attainment of men and women in developing countries, the effects of schooling on labor force participa tion, wages and fertilities, and the issues of school finance and educa tional policy in the Third W orld.

ITSF 4052. Education and economic growth (2-3)
Faculty. Relation of education to economic growth in the context of less developed countries, the social returns to education, migration and "brain drain," and manpower planning.

ITSF 4054. Education and strategic planning (3) Faculty. Educational planning within the context of national economic planning; the methods, assumptions, validity, and usefulness of the major approaches; examples mainly from the less developed countries.

## ITSF4055. Resource allocation

in education (3)
Professor Levin. This course reviews the literature on school effectiveness with respect to the allocation of resources. It addresses and anal yzes education production functions and cost-effectiveness anal ysis in educational decisionmaking.

ITSF 4057. Economics of urban and minority education (3)
Professor Rivera-Batiz. Policy-oriented approach to the connections between education and the economy in an urban context. Topics include urban industrial restructuring and socioeconomic trends, equity in school finance, teacher salaries, public versus private roles in education, linkages between schools and the business sector, the economics of discrimination, and immigration policy issues.

ITSF 4059. Education, economic growth, and competitiveness (3) Professor Bailey. The relation between education and economic growth, productivity, and competitiveness of the firm and the macro-economy. Focuses on the educational implications of the changing nature of work, greater international competition, and the varying rates of productivity growth.

## ITSF 4060 The Latino popula-

 tion of the U nited States (3)Professor Rivera-Batiz. Interdisciplinary course examining the major issues affecting the Latino population of the U nited States. Focus is on the methods and perspectives utilized by social scientists to anal yze the Latino experience. M ajor social, demographic, economic, and political trends will be discussed.

ITSF 4151. Special topics in the economics of education (3)
Professors Bailey, Levin, Rivera Batiz and Tsang. A seminar on topics in the economics of education. Themes to be announced each term.

## ITSF4155. Education, privatiza-

 tion, and school choice (3)Professor Levin. This course addresses the increasing emphasis on market-type choice systems including educational vouchers, for-profit educational firms, and charter schools. It places great emphasis on the theory of emerging empirical evidence underlying these devel opments in education.

## ITSF4550. Workshop in economics and education

Professor Levin. For doctoral students and others with research projects or potential research projects in the field. Participation required for doctoral students writing their di ssertation. Students who are beginning to think about their dissertation topic or working on proposals are al so encouraged to participate. Faculty members may also be invited from within or outside the department to present their work.

ITSF 5650. Readings in the economics of education (3)
Professor Bailey. Selected readings in the economics of education. Recommended for students with background in economics or a related discipline. As the selection of readings differs in different semesters, a student may register for more than one semester of ITSF 5650.

## See also:

- ORLJ 4025. School business administration (3)
- ORLJ 5020. Information systems for decision-making in learning organizations (3)
- ORLJ 5021. Management science (3)
- ORLJ 5025. Strategic management in education I: fiscal systems (3)
- ORLJ 5026. Strategic management in education II: micro computer (3)
- ORLJ 5046. School finance: resource allocation (3)
- ORLD 4030. The economics of post-secondary education (3)
- ORLD 4031. Financial administration of higher education institutions (3)
- HUDM 4126. Applied regression analysis (3)

See al so in the C ol umbia U niversity
Bulletin: E con G 4213, M acroeco-
nomic analysis; E con G 6211-G 6212,
M icroconomic analysis; E con G6411-
G6412, Introduction to economerics;
E con G 6451-G 6452, Economics of
labor and population; Econ W 4228,
The urban economy; Econ W 4328,
E conomic devel opment; E con W 4410,
M athematical methods for economists;
E con W 4460, H ealth economics.

## Departmental Courses

ITSF 4600. Group studies in educational issues (1-3 per section) Permission required. Opportunity for groups to organize colloquia, seminars, or practica, with faculty sponsorship, for the study of specific educational issues, problems, or policies, and for the development of particular skills, in accordance with emerging social situations and urgent common concerns. Students wishing to engage in such studies must present a plan and secure the sponsorship of a faculty member of the department who will serve as advisor. Registration and evaluation procedures will be worked out and carried through with this advisor.

ITSF 5430. Internship (1-6) Permission required. Supervised experiences in diverse settings designed to develop skills in research, development, planning, and evaluation.

ITSF 6200. Field research outside the U nited States (0) Permission required. Required of doctoral students when choice of doctoral research necessitates data generation in other countries. One year of field experience under supervision in approved geographical and institutional site. Students secure approval of department chair and principal advisor in advance, and render periodic reports.

ITSF 7500. Dissertation seminar in international and transcultural studies ( $0-3$ )
Permission required. Proposal writing. Required of doctoral students in the semester following successful completion of certification examinations.

ITSF 8900. Dissertation advisement in international and transcultural studies (0)
Individual advisement on doctoral dissertations. Fee: to equal 3 points at current tuition rate for each term. For requirements, see section in catal og on Continuous Registration for Ed.D./Ph.D. degrees.

In each of the areas within the department, advanced students may register for intensive individual study of some aspect of their specialization. Registration is only by permission of the instructor under whose guidance the work will be undertaken. Times for individual conferences will be arranged. Enrollment may be for 1 or more points each term, and registration is not limited to one or two terms.

## ITSF 4900. Studies in interna-

 tional and transcultural studies (1-15)ITSF 6900. Studies in international and transcultural studies (1-15)
ITSF 6950. Studies in economics and education (1-15)
ITSF 6990. Studies in international educational development (1-15)
ITSF 6991. Studies in comparative education (1-15)

Chair: Professor O. Roger
Anderson
Room 321 Thompson H all, Box 19
Telephone: (212) 678-3405
Fax: (212) 678-8129
W EB Address:
http://www.tc.edu/academic/ mst.htm
Please direct general admissions questions to the 0 ffice of Admissions, (212) 678-3710, tcinfo@www.tc.columbia.edu.
International applicants: Please direct inquiries about visas, employment, financial aid, and cultural adjustment to
tcintl@columbia.edu.
Preservice Science Education
M.A. applicants may refer admissions questions to Professor K eith Sheppard (212) 6783425, sheppard@exchange.tc. columbia.edu.

## Programs:

Communication and Education
Computing and Education
Instructional Technology and Media
M athematics Education
Science Education

## Faculty:

## Professors:

O. Roger Anderson

John Black
H erbert Ginsburg
R obert McClintock
H erve Varenne
Bruce R. Vogeli

## Visiting Professors:

Bernard R. Gifford
H enry O. Pollak
J. Phillip Smith

## Associate Professors:

Angel a Cal abrese Barton
Robert P. Taylor
JoAnneK Ieifgen

## Adjunct Professor:

Michael J. Passow
Joel E. Schneider

## Assistant Professors:

Elaine H owes
K eith Sheppard

## Visiting Assistant Professor:

Alexander K arp

## Adjunct Assistant Professors:

J amsheed A krami
H oward Budin
José Fernández
Susan Lowes
Patrizia M agni
Frank M oretti
K aren E.S. Phillips
K athy Powell
Robin Stern
R obert Steiner
Thane B. Terrill

## Instructors:

Shawna Bu Shell
Eric Cohen
Barbara A bbate-Sturman
Roberto Agodini
Yoonil Auh
Craig Bolotin
James L. Ealy
W endy M. Frazier
Sheila K ieran-G reenbush
Shiao-Chuan K ung
R obert M atsuoka
Ellen M eier
David Miele
Chrystalla M ouza
Ross H. Nehm
Mario Riccobon
Charles Schultheiss
Courtney St. Prix
David Van Esselstyn
For information about faculty and their scholarly and research interests, please refer to the "Faculty" section of the Catalog.

## Departmental mission:

The programs of study in our department focus on issues of educational practice and related professions in science, technology, mathematics, and cognate human sciences, including the rel ationships among these disciplines. Our modern world has been transformed by the achievements in pure and applied disciplines grounded in mathematics, science and tech-
nology. Current reforms in education place increasing significance on broad-based public understanding of these three fields of human endeavor and they are often closely linked in the curricula of educating institutions. The study of communication and technology in education is broadly based in these three disciplines and al so is enriched by cultural and historical wisdom that provides a scholarly perspective on the role of media in society and particularly in education. W ithin this unifying view, the Department of $M$ athematics, Science and Technol ogy includes special ized programs to address the needs of professional practitioners in each of the three areas.

The Department houses the College's Programs in $M$ athematics and Science Education. These programs include scholars who address the preparation of mathematics and science teachers and teacher educators, and more particularly focus on the acquisition of scientific and mathematical literacy to foster future development of science and technology; the understanding of environmental sciences and improved global stewardship of the environment and the linkages between science and society; the use of computers, computer modeling and instrumentation in mathematics and science instruction. These scholars, many of whom have extensive international experience in their subjectmatter disciplines and in educational theory and practice, therefore comprise one of the sections of the department.

The Program in Communication, Computing, and Technology (CCTE) in Education provides a cluster of degree programs for students who seek to develop leadership capacities in the uses of information and communication technologies in education. The programs pre-
pare candidates both for leadership roles in integrating digital technol ogies into education at all its levels and for entry into creative work in the educational uses of new media. CCTE doctoral programs devel op schol ars who use the social and human sciences to study how applications of advanced technologies in education act as powerful social and historical forces, empowering educators to seek new solutions to established problems. Graduate study in CCTE is tightly integrated with design and implementation projects situated in several externally funded centers and institutes at Teachers College and Columbia University. This program is led by faculty with extensive international experience and al so links the College to ongoing university initiatives in communication and information technologies. Faculty and students of this program examine technology as well as the role of computers and other media of communication on education and the assessment of educational performance in a wide variety of institutional settings.

Each of the programs has a unique focus or perspective, but the faculty al so share some common scholarly perspectives, educational ideals, and a strong commitment to the improvement of society through improved scholarly practice in the educating professions and enhancement of human potential.

## Communication,

Computing, and
Technology in Education
Program Coordinator:
Professor R obert McClintock
322 Thompson H all, Box 8
Telephone: 212-678-3344
Fax: 212-6788-8227
W EB Address:
http://ccte.tc.columbia.edu/
Please direct general admissions questions to the Office of

Mathematics, Science, and Technology

Admissions, (212) 678-3710, tcinfo@www.tc.columbia.edu. International applicants: Please direct inquiries about visas, employment, financial aid, and cultural adjustment to tcintl@columbia.edu.

## Communication and Education

(Code: TUC)

## D egrees Offered:

M aster of Arts (M.A.)
Master of Education (Ed.M.)
Doctor of Education (Ed.D.)

## Computing and Education

(Code: TUD)

## D egree Offered:

M aster of Arts (M.A.)

## Instructional Technology and Media

(Code: TUT)

## D egrees Offered:

M aster of Arts (M.A.)
Master of Education (Ed.M.)
Doctor of Education (Ed.D.)

## Spedal Application <br> Requirements/Information:

M.A. and Ed.M. applicants are reviewed on an ongoing basis. For scholarship awards, applicants who meet the priority deadlines receive preference (J anuary 15 for summer and fall and $N$ ovember 1 for spring) with the most aid going to doctoral students who meet the J anuary 2nd deadline.

Doctoral applicants are required to submit a writing sample and results from the GRE General Test. They are also strongly encouraged to arrange for an interview. CCTE reviews doctoral applications once a year in late February with the expecta tion that doctoral students will start during summer or fall sessions. Consequently, doctoral candidates should meet the J anuarya 2 nd priority deadline for applications.

In addition to academic criteria, CCTE takes into account the rel evance of its resources to a prospective student's professional goals as described in the personal statement in making admission decisions.

## Program D escriptions:

Communication, Computing, and Technology in Education provides a cluster of degree programs for students who seek to develop leadership capacities in the uses of information and communication technologies in education. It serves students, staff, and faculty members who share a commitment as educators to use digital technologies to improve education at all levels. W ork through CCTE should move simultaneously towards two poles of understanding and practice- towards a comprehensive understanding of the cultural and historical implications of new technologies for education and life and towards purposefully selecting and shaping the uses of new media in educa tional practice at all levels.

CCTE's programs deal with the many ways in which material culture changes and shapes educational practice at all its levels. H ere are some assumptions about the long-run effects that innovations in information and communications technologies are having on education and culture. W ork through CCTE should lead faculty and students to study, criticize, develop, and extend propositions such as these.

- W hen changes in informa tion and communications technologies transform the ways people create, disseminate, and apply knowledge, deep changes in educational practices occur.
- Educational institutions, including schools of education, will undergo prolonged change and significant transformation, occasioned by changes in the media of intellectual production.
- As digital information and communications technologies, the separation of schools and higher education into two, largely distinct, educational cultures will markedly diminish.
- W ith the emerging intellectual conditions, activities contributing to the creation of knowledge will increase in rel ative val ue, while those devoted solely to its dissemination will decrease.
- Campuses will remain important foci of intellectual activity while participation in them will become more flexible via networks supporting asynchronous, distributed involvement.
- Specialists in education will need to work closely with scholars, scientists, and professionals to embed powerful learning experiences in digital technology for advancing knowledge.
- Increasingly, educators will de-emphasize imparting a static stock of information and ideas, and will instead seek to enable all people to contribute to the advancement of knowledge.
- Demand for highly skilled educators will increase, and preparing them will largely be a field-based engagement in situations where students interact with new knowledge resources.
- Schools and other educational institutions will increase in public importance, and the educating professions will increasingly become hightech and high-prestige professions.
- Changes in information and communications technologies will resuscitate the progressive movement in education, enabling it to be both broadly egalitarian and intellectual ly rigorous.

Communication, Computing, and Technology in Education aims to prepare students to deal with both the present and
future implications of new media, and to play a constructive role in shaping the educational response to innovations in information and communications technologies. Although these concerns are common to all three programs, each has distinctive nuances with respect to methods and purpose:

- Communication and Education relies primarily on social science inquiry to understand, interpret, and shape how information and communications technologies influence culture and education.
- Computing and Education works with computer information systems to facilitate the effective extension of digital technologies into educational practice.
- Instructional Technology and M edia concentrates on the creation and application of innovative technologies, guided by a research tradition grounded in pedagogy and cognitive science, in order to make new media work as powerful tools for study and teaching.

A cross the three programs, students and faculty members all engage in research, devel opment, theory, and application. All three programs put a high priority on group work, field work and internships, and planning, implementing, and completing innovative projects. Schools, computer companies, businesses, and other agencies are normally partners in projects, providing environments, materials, personnel, or opportunities for carrying them out. The Institute for Learning Technologies
(http://www.ilt.columbia.edu), the Center for Technology and School Change
(http://www.tc.columbia. edu/~academic/ctsc//), and the Columbia Center for N ew M edia Teaching and Learning (www.ccnmtl.columbia.edu) work closely with CCTE faculty members and students and pro-
vide a wide range of internship and fieldwork opportunities.

## Communication and Education

Through the program in Communication and Education, students prepare for a variety of roles:

- Teaching and research positions in higher education; for work in schools using information and communications technologies as means for improving educational practice
- Conducting formative and evaluative research in the areas of educational media and information technologies
- Careers as innovators in the design and use of new media for educational purposes
- W ork in business and government designing and implementing corporate communication programs.

The program uses the methods of the social sciences, encompassing both qualitative and quantitative approaches to the study of communication and education. They ask, in particular, how education and other social systems change under the impact of new media. Faculty members and students pursue three broad areas of inquiry, enabling them to:

- Reflect on the historical effects of media and on the cultural uses of developments such as face-to-face speech, writing, printing, photography, film, radio, tel evision, computers, and networked multimedia
- Use anthropological and linguistic methods to study how the diverse forms of communi cation, information processing, and cognition condition educational practice
- Explore positive and negative effects of media on social relations and develop strategies for using information and communications technologies to improve conditions of education and life.

In the course of completing a degree, the student should expect to attend closely to both technical artifacts and to human activity; that is, both to material systems of communication in which technologies are the matter of primary interest and to interpersonal, direct communication dynamics in which unmediated exchanges, face-to-face, are the subject of inquiry. A major theme for continuous reflection should be the diverse ways in which the modes of communication condition the meanings actually and potentially communi-cated- whether in face-to-face conversation or through a global broadcast using satellite transmission.

## Computing and Education

Students who compl ete the master's program in Computing and Education take positions in:

- schools, as computer coordinators or teachers using advanced technologies in the classroom
- new media companies, developing software and multimedia applications for education and training
- academic computer centers and corporate information services, and in education departments at the federal, state, and local levels, managing the integration of information and communications technol ogies into schools.


## Instructional Technology and Media

Students who have earned degrees in Instructional Technology and M edia find positions in education, government, and industry. Some continue to work within formal education, as teachers, researchers, or administrators on the elementary, secondary, or college level. Others work in training and development departments in business or government agencies. An increasing number
work as independent professionals in a variety of settings, such as educational service, production consulting, and publishing. Still others have established themsel ves as researchers, designers, and producers for innovative multimedia projects.

In recent years, students in the program have made three questions paramount:

- Which emerging technologies hold greatest promise for enriching the learning experience throughout the educational enterprise?
- W hat pedagogical strategies should designers embody in instructional materials, including those based on multimedia?
- H ow should educators deploy, manage, and evaluate information and communications technologies in classrooms for optimal educational effect?
- W hat principles of design and practice should educators incorporate into distributed educational courses and programs?

The W orld W ide W eb and rel ated technol ogies have lowered the costs of distance learning programs greatly while increasing their flexibility. Through Instructional Technology and M edia, faculty members and students join to develop the skills needed to make full use of the new opportunities in distance and distributed learning.

## Participants in the threeCCTE

 program areas share a basic conviction that good design in educative matters starts with careful attention to the needs and characteristics of the students that the design will serve. The ability to understand the student, through empirical research and empathic engagement will make the design of instructional technology be more than just technically proficient, but educational ly valu-able as well. In all, this attention to the student defines the technological humanism we seek through all components of the programs in CCTE, a humanism that combines the use of sophisticated technology with humane commitments for guiding purposes.

## Financial Aid and Other Assistance

In addition to college-wide financial aid opportunities and student services, the faculty members of CCTE are committed to generating an increasing range of opportunities for remunerative work that will integrate well into our program of studies. Essentially such opportunities are of three types: assi stantships in research and development projects, instructorships to teach basic courses in our field, and internships in industry, government, and education. The precise opportunities that exist in these areas continually change as projects, here and elsewhere, begin, proceed, and culminate. To find out about these opportunities, students should consult individual faculty.

## D egree Requirements:

Formal recommendations should not determine the course of study a student will take; they should help structure the type and character of student choices. The collegewide degree requirements are stated in the "D egree Requirements" section of this bulletin. The following description of steps through programs specific to Communication, Computing, and Technol ogy in Education amplifies the college-wide requirements and should serve as an aid for structuring an individualized program of study based on previous experience, professional goals, and interests. Enrolled students can obtain further specifics about requirements and the academic calendar from the program office, Box 8, (212) 678-3344.

Mathematics, Science, and Technology

Choosing a program of study is a necessary, but not sufficient, way to a degree. Degrees represent advanced levels of mastery in rigorous scholarship and disciplined practice. In developing a program, students should find ways to meet the intrinsic demands of the field.

## M aster of Arts

To earn the $M$ aster of Arts (M.A.) degree, students must satisfactorily complete of 32 points of course work and an integrative project which combined consist of roughly the equival ent of one calendar year of full-time academic work. Teachers College accepts transfer credit for the M.A. degree. In CCTE programs, the M.A. degree serves two main functions: in part as a mark of entry-level professional qualifications in the fields we cover, and in part as a grounding for further, more advanced specialization in the field. Students should consult with a faculty advisor and choose their courses with care in light of these functions. Teachers College has a breadth requirement, which students fill by taking three courses, each for at least 2 points, outside the area of Communication, Computing and Technology (i.e., courses with a prefix other than MSTU).

Unless a faculty advisor authorizes an exemption, all M.A. candidates should complete the following Program require ments. They should take MSTU 4000, Core Seminar in Communication, Computing, and Technology, for 2 points as early in their program as possible. They should take four courses from the core in their area, listed here, and at least one course from the core in each of the other areas.

W here appropriate to special circumstances arising from a student's interests or from scheduling constraints, a stu-
dent may substitute other courses from CCTE offerings in consultation with his or her advisor for the core courses listed here.

## Core Program Courses

## Communication and Education

- MSTU 4000, Core Seminar in Communication, Computing, and Technology in Education
- M STU 4010, Theories of communication
- MSTU 4016, H istory of communication
- M STU 4018, Design \& communication in modern culture
- M STU 4049, Computers and writing
- M STU 5003, Communica tion and culture
- M STU 5020, Computermediated communication


## Computing and Education

- MSTU 4000, Core seminar in Communication, Computing, and Technology in Education
- M STU 4022, Telecommunications, distance learning, and collaborative interchange
- M STU 4031, Programming I (required of those who are not proficient programmers)
- M STU 4052, Computers, problem solving, and cooperative learning
- M STU 4085, N ew technologies for learning
- MSTU 4133, Cognition and computers
- M STU 5555, Technology and the emergence of a global curriculum


## Instructional Technology \& Media

- MSTU 4000, Core seminar in Communication, Computing, and Technology in Education
- M STU 4008, Information technology and education
- M STU 4083, Instructional design of educational technology (I and II)
- MSTU 4133, Cognition and computers
- M STU 5020, Computermediated communication - MSTU 5030, Intelligent computer-assisted instruction
- M STU 5510.01, Topical seminar- Design of distributed instruction

Candidates for the M.A. degree will be expected to culminate their work with an integrative project. Such a project might be a review essay in which they give a thorough, well-written summation of current research and development work in an area of their choice within the broad field of Information and Communications Technologies in Education or a multimedia instructional application. In addition, we recommend strongly that students take some Fieldwork or Internships as an integral part of their master's program, for experientially grounded learning is an invaluable preparation for professional practice. W einclude further information on Fieldwork and Internships below.

## Master of Educ ation

An Ed.M. degree represents roughly the equival ent of two years of full-time study. It serves for some to mark progress toward a doctorate and for others to initiate intermediate professional qual ifications for students who have previously completed a master's degree at Teachers College or other institutions. Up to 30 points of graduate credit earned el sewhere may be counted toward the minimum 60 -point requirement. Candidates for the M aster of Education (Ed.M .) who have not met the Teachers College breadth requirement. Ed.M. candidates who have completed an M.A. in CCTE, or an equival ent program, should sel ect further courses to broaden and deepen their mastery of the field. Those who are transferring a significant number of points from a different special ty towards the Ed.M. should
include a sel ection of CCTE core program courses in their remaining course work. In addition to completing the minimum course requirements and developing a skill specialization, candidates for the Ed.M. degree should culminate their work through a research or development project submitted to the faculty. Like the M.A. integrative project, it should result from independent effort equival ent to that for a 3-point course. This project should represent the student's interests well, one that allows him or her to display the spe cialized skills developed in study for the degree.

Students accepted for a doctoral program should earn the Ed.M. as an integral part of their doctoral work. The Ed.M. can be, however, far more than a stepping stone to a doctorate. It has great flexibility and students can use it to lay a strong foundation for significant positions of leadership that demand high levels of skill but do not require doctoral-level academic certification. For instance, students can put together a very effective 60-point program deal ing with "school media for curriculum innovation." In a similar way, one can develop a very strong grounding in educational software devel opment through the Ed.M. degree. It can serve many purposes: one needs to think through one's aspirations and use the scope of the Ed.M. program to build academic and experiential foundations for their achievement.

## Doctor of Education

Doctor of Education (Ed.D.) degree candidates should read "Requirements for the Degree of Doctor of Education," which can be obtained from the Office of Doctoral Studies. It states the formal requirements for the degree and lays out the steps leading to it. Communication, Computing, and Technology in Education requirements
include basic courses, a skill concentration, and independent projects, all leading to the certification examination and the dissertation.

Doctoral candidates should consult CCTE's description of the specific steps to the doctorate in Communication and Education and Instructional Technology and M edia. These steps to the doctorate have been designed to ensure that students develop ability in one or more modes of inquiry, contribute professionally to a field through conferences, presentations, or publications, and participate actively in CCTE functions outside class work.

Programs are planned individually in consultation with a faculty advisor, starting with the admission interview and initial writing assignments. Doctoral candidates should devel op a systematic plan for study early in their program, encouraging sustained consideration of a dissertation area and tailoring course sel ection to support dissertation work. The doctorate represents the highest level of educational preparation achievable in the field. To complete it well, students should meet all require ments with a fullness and in an intellectual spirit consonant with this status.

## Speaial D egree C ohorts:

## The Internship-Based Cohort Option:

This track is for students who will work full-time for a master's degree in one of the programs in Communication, Computing, and Technology in Education at Teachers College. The Cohort option is for students particularly interested in integrating advanced technologies into the school curriculum, K-12.

Each September, CCTE will admit up to 20 masters candidates who will study full-time as a cohort, completing their degree in one year. Through courses, fieldwork, and internships, participants will study leading efforts to develop the school curriculum through technological innovation. Participants will take a prescribed set of courses and engage in practical design and implementation work to fulfill current master's degree requirements. They will acquire a theoretical basis for creative work with technology in education through selected courses. They will gain practical experience in the classroom uses of informa tion technol ogy via studio design work and internships at innovative schools in N ew York City, working in implementation activities through the Eiffel Project, a U.S. Challenge Grant for Technology in Education.

U pon completion, participants in the Internship Cohort should be ready for leadership roles on school faculties in using advanced information technology to transform the teaching and study of core curriculum areas. For information, write R obert McClintock, Box 136, Teachers College, call (212) 678-3344 or 678-3115, or visit www.ilt.columbia.edu/ academic/ibco/.

## The Intensive M aster's Program in Computing and Education:

This track was designed primarily for those teachers who live too far from Manhattan to attend courses during the regular academic year. Students in this program attend intensive four-week sessions at Teachers College, usually in July, and do the remainder of their credit work through independent study. The degree can be obtained in two summers and the intervening academic year, but can al so be done over a longer period of time.

Courses and independent study work focus on all aspects of using computers in teaching and learning, including theories of instructional design, use of software, new technologies such as hypermedia and telecommunications, teaching strategies, and software production. The Intensive Program accepts up to about 20 new students per summer, and over the past ten years more than 150 students have completed the program. H ousing is arranged at a Columbia dormitory. For more information, write H oward Budin, Box 8, Teachers College, call (212) 678-3773, or visit www.tc.columbia.edu/~ academic/ctsc/imp.htm.

## Courses:

M ost courses are offered once a year; a few are offered each term and some once every two years. Current scheduling information may be obtained from the program office.

## M STU 4000. Core seminar in communication, computing and technology (1-2)

Professor M cClintock and Faculty. Required for incoming students. M eets with M STU 6600. Discussion of critical issues, reading of key works, devel opment of project Communication, Computing, and Technology in Education, presentation of work in progress, conversations with leaders in the field. Special fee: \$25.

## M STU 4008. Information technology and education (3)

Professor Rothkopf. A nalytic overview of the uses of information technol ogy in instruction. Examination of psychological and practical impact of information technology on our culture and its educational institutions. Special fee: \$25.

## M STU 4010. Theories of communication (2-3)

Professor M oretti. A broad, multidisciplinary survey of contemporary perspectives on communication. Topics include: definitions, models and theories of information processing, history of media
change, cross-cultural communication, interpersonal communica tion, and the uses and effects of mass media. Special fee: $\$ 35$.

## M STU 4012. Film as art: Intro-

 ductory (2-3)Professor A krami. Film as 20th century art, emphasizing form and style. A nal ysis of featurelength and short films of different nations, styles, themes, and genres. No pre vious experience in film anal ysis needed. Special fee: $\$ 50$.

M STU 4016. The history of communication (3)
Professor M oretti. A comprehensive survey of the history of communication, tracing the development of the dominant modes of transmitting knowledge, from speaking to writing, from printing to the electronic media. Special fee: \$50.

MSTU 4018. Design and communication in modern culture (3)
Professor McClintock. H ow have practices of abstract reasoning, the pursuit of formalism, and conceptualizing the structure of complex phenomena affected modern design and communication? Readings and class discussions explore this question, using examples drawn from architecture, fine art, graphics, typography, photography, advertising, industrial design, formal organization, process control, transportation, information theory and management, and major media of communication. Special fee: $\$ 25$.

M STU 4022. Telecommunications, distance learning, and collaborative interchange (3) Professor Taylor. Introduction to the use and educational implications of telecommunications, distance learning, and collaborative interchange using telecommunications, particularly the Internet and the W orld Wide W eb. Special fee: \$25.

## M STU 4023. Cinema as cross-

 cultural communication (3) Professor Akrami. A nalyzes how films explore culture. Discussion of the film as well as on the cultural messages portrayed. Special fee: $\$ 50$.Mathematics, Science, and Technology

M STU 4024. Television and the development of youth (3)
Ms. K aplan. A comprehensive survey of the social izing and educational effects of television viewing during childhood and adolescence. W ithin a developmental framework, emphasis is placed on reviewing and critiquing research involving the effects of both formal features of tel evision (e.g., cuts, pans, pace) and the various types of television programs on viewers' comprehension, behavior, attitudes, and beliefs. Special fee: $\$ 50$.

M STU 4030. Computer applica tions in education (3)
Mr. Schultheiss \& M s. K ieranGreenbush. Hands-on experience learning a variety of computer applications, focusing primarily on word processors, spreadsheets, and database managing. Students cre ate their own educational applications. No computer background assumed. Special fee: $\$ 50$.

M STU 4031. Programming I (4) Mr. Schultheiss. Communicating with computers and humans through programs. Uses a graphic language to formalize the concepts behind software structure, and a current, widely-used implementation language such as $J$ ava to construct representative applications. Special fee: $\$ 50$.

M STU 4035. The computer as an instructional aid (3)
Professor Budin. A presentation of research and issues surrounding the use of computing in schooling. Cognitive and social effects of computers on students are investigated and strategies are devel oped for integrating computing into the curriculum. Special fee: $\$ 25$.

MSTU 4036. Hypermedia and education (3-4)
Ms. Bu Shell, Ms. M ouza, Ms. Kung, Mr. Bolotin, and Dr. Magni. Introduction to hypermedia products and programming and their role in education. Four-point registration is for hypermedia programming lab. Special fee: $\$ 50$.

MSTU 4037. Computers and the uses of information in education (3)
Dr. Budin. This course examines how computers can structure and present information, eval uates current educational software that uses information, and considers the
design of software for integrating information applications into education. Prerequisite: MSTU 4030 or equival ent computer experience.

M STU 4049. Computers and writing (2-3)
Professor K leifgen. An examination of the relationship between computers and the writing process. The course explores the effect of electronic text on traditional notions of text, literacy, and communication. Assumes no computing experience. Lab fee: $\$ 25$.

## M STU 4052. Computers, problem solving, and cooperative learning (3)

Dr. Budin. Considers how computers may be used to promote cooperative learning in problem solving for students throughout the curriculum, focusing on the use of simulations, databases, programming, and problem solving software. Course content will include active participation in cooperative learning using computers as well as background work in educational theory as it relates to problem solving and cooperative learning. Special fee: \$25.

## M STU 4078. Technology and

 education in Western history (3) Ms. Hogan. An historical inquiry into the educational implications of technol ogical change, particularly as it has affected cultural values and the capacities to organize action and to communicate ideas. Special fee: $\$ 30$.
## M STU 4080. Television and

 video applications in education (3)Professor Gifford. The role of media literacy is explored as a means to understand our popular culture and foster critical autonomy in young people. Emphasis is placed on critiquing educational television programs and video and using them effectively in the classroom. Special fee: $\$ 35$.

## M STU 4083. Instructional design of educational technology (I and II) (3)

Professor Gifford. The nature of instructional technology, systems approaches to planning, managing, and eval uating instructional processes and materials. Emphasis is on instructional design. Special fee: $\$ 50$.

MSTU 4085. New technologies for learning (2-3)
Professor Taylor and visiting experts. A survey of technologies such as multimedia and telecommunications applied to learning and research, with full demonstra tions and critical discussion by experts. Includes discussion of implications for educational change. Special fee: $\$ 50$.

## M STU 4086. Text understanding and design (3)

Professor Black. Covers ideas about how people understand textual materials and learn from them; then applies these ideas to the design of instructional text. Students design instructional materials for topics of interest to them. Special fee: $\$ 25$.

M STU 4133-M STU 4134. Cognition and computers
Professor Black. Ideas about cognition and knowledge representation and how they relate to the use of computers in instruction. The student selects a subject area, learns to represent knowledge from it so that it can be implemented in a computerized instructional system and uses the knowledge representation to characterize the cognitive prerequisites and consequences of learning to use computers.

- M STU 4133. Cognition and computers (3) Special fee: \$25.
- MSTU 4134. Cognition and computers lab (1-3) Permission required. Corequisite: M STU 4133. Special fee: $\$ 25$.

MSTU 4901-M STU 4904.
Research and independent study (1-6)
Permission required. For M aster's students. The participating student will propose a program of independent research or project devel opment to a faculty member. Students in their first term of study aregenerally not accepted. Conference hours are arranged.

## M STU 5003. Communication

## and culture (3)

Professor Varenne. Introduction to major theories of human communication and culture as they relate and build on each other.

MSTU 5020. Computer mediated communication (3)
Professor McClintock. A nal yzes characteristics of such computer-
mediated communication systems as networked multimedia, elec-
tronic mail, bulletin boards, and computer conferencing, and situates these systems in the context of the emerging national information infrastructure. Students will participate in on-line communication systems. Special fee: \$50.

## M STU 5030. Intelligent com-

 puter-assisted instruction (3) Mr. Cohen. Prerequisite: MSTU 4133. Participants study ideas about the representation of knowledge, models of the learner, and teaching strategies that have been developed in artificial intelligence and cognitive psychology, and they develop and test intelligent com-puter-assisted instruction materials for topics of interest to them. Special fee: $\$ 25$.
## M STU 5031. Programming II

 (3-4)Faculty. Prerequisite: M STU 4031 or a solid basic knowledge of programming. A pplies programming to significant problems through team projects using J ava or C + + to construct salient applications. Special fee: $\$ 50$.

M STU 5191-M STU 5192. Educational video production I and II (3-4)
Mr. Riccobon. Permission required for MSTU 5192. Practical studio and field production experience of educational video programs, with special concern for realizing educational purposes through directing, scripting, staging, camera operation, lighting, and sound design. Special fee: $\$ 75$.

## M STU 5194. Models of interac-

 tive learning (3-4)Faculty. This course explores the psychological and educational literature on interactivity and learning. W hat is the role of interactivity in learning and teaching with new educational technologies? W hat are the key formats and attributes of interactivity with electronic media? These and other questions are studied by discussing current theory and research and by evaluating state-of-the-art media projects. Special fee: $\$ 25$.

M STU 5201-M STU 5204. Fieldwork (1-6)
Permission required. Opportunity for qualified students, individually or in small groups, to develop and
pursue projects in schools, community agencies, business organizations and communication facilities. Students in their first term of study are generally not accepted. Conference hours are arranged.

## M STU 5510. Topical seminar

 (1-3)Faculty. Permission required. Periodically under this number various faculty and staff members offer courses on important topics in communication, computing, or instructional technology and media which will be announced at least one semester in advance. Topical seminars include the following:

- Topical Seminar: Toward a theory of distributed instruction (3)
Professor Gifford. Can the same theories of instruction that inform the organization and conduct of the teaching and learning enterprise within conventional classroom settings al so be utilized to guide the design, development and continuous improvement of location-independent computer-mediated instructional settings? We think not. If this is the case, then what new varieties of teaching methods and learning activities must these new theories of distributed instruction accommodate? M oreover, how important is computer-mediated collaborative learning and teaching in these new theories? The purpose of this yearlong seminar is to provide graduate students with a serious interest in learning, teaching and technol ogy a forum for examining these simiIar questions. Special fee: $\$ 25$.


## - Topical Seminar: D atabasedriven web site development

 (3)Mr. Matsuoka. A laboratory course in developing educationally oriented database driven web sites. HTML forms, ColdFusion, SQL programming and building databases/data modeling. Course readings and discussions on internet related issues: interface and application design and development. Special fee: $\$ 50$.

[^0]developing research proposals that focus on teaching and learning, this one-credit seminar will look at the theoretical bases for different quantitative and qual itative research methodologies (questionnaires and surveys, interviews, ethnographies and case studies, action research), as well as the advantages and disadvantages of each. We will also discuss how to define research problems and devel op researchable hypotheses from the existing literature. Each student should come with a research project in mind.

## - Topical Seminar: Technology, education, and public policy (3)

Professor McClintock. A survey of public policy issues influencing the educational uses of information and communications technologies. Issues will includefederal policies to link classrooms to the information infrastructure such as the e rate, the ways research funding affects the educational uses of digital technology, and intellectual property issues with respect to new media in education. Special fee: $\$ 25$.

## - Topical seminar: Media and education (3) <br> Professor Budin. This seminar

 explores a variety of media and their effect on our thinking, our culture and education. If it is true, as M arshall M cLuhan and others have described, that the printing press defined the crucial aspects of the modern world, are wenow moving away from the linear, standardized,"factory" culture and education into a new paradigm defined by new media? This seminar will address a number of key questions involved in this shift. It will examine ways in which media differ from each other, society's expectations for new media, and how education has used media or should be using them. Special fee: $\$ 25$.

## - Topical seminar: Writing technology (3)

Professor Taylor. Participants in the course will examine some seminal works about writing, will study some exemplary traditional texts and some hypertexts, and will engage in extensive
writing experience for both media. The experience should benefit both those preparing for work in the new media and those who simply need sharper expressive writing skills. Writing in the context of email will al so be examined. Special fex: \$25.

## - Topical Seminar: Technology and school change (3)

* Dr. Budin. This seminar will examine the history of educational expectations for technology and technology's record in changing schools, in the context of theories of institutional change and efforts through the modern school restructuring movement to include technology. The seminar will examine recent documents and reports on using technology to effect change. Part of the seminar's work will involve planning for effective change via new technologies. Special fee: \$25.
- Topical seminar: Social and emotional learning and digital technology (3)
Dr. Stern. This course will explore how to experience and enhance social and emotional learning. Students will create projects that will focus on the approaches of digital technology to the teaching and learning of one or more components of social and emotional intelligence. Special fee: $\$ 25$.
- Topical seminar: Art, music, and technology: Their symbiotic interplay (3)
Professor Taylor. Students will visit art exhibits, attend live musical performances, and examine selected video and computer artifacts, including web sites, to explore alternately the use of technology by the fine arts and the use of these arts by technol ogy, particularly with respect to the world wide implications of this symbiosis for education. Special fee: $\$ 25$.


## - Topical seminar: Gender, communication, and digital technology (3)

Dr. Stern. The focus of this course is to look at the differential impact of digital technology, an ever increasing part of socialization, on gender. Participants will review and examine commonly known linguistic and
communication differences and analyze how and if they have been altered through the medium of digital technology. Special fee: \$25.

## M STU 5555. Technology and

the emergence of a global curriculum (3)
Professor Taylor. This course deals with the impact of technology on human society over the ages, how technology in particular is shaped by, and in turn shapes, the vision informing a specific culture and its curriculum, and how the global sharing of technol ogy is inexorably contributing to the emergence of a common global curriculum. U ses its own website, www.tc.columbia.edu/~global. Special fee: $\$ 25$.

## M STU 5814. Work conference

 (0-2)Faculty. Permission required.
Occasional brief conferences convened by Communication, Computing, and Technology on subjects of special interest.

## MSTU 6030. Evaluating technol-

 ogy in education (3)Faculty. Limited enrollment. Introduces a range of evaluative instruments and techniques and applies them, through student teams, to a representative instructional software and to technologybased educational innovations. Special fee: $\$ 25$.

## MSTU 6031. Multimedia educa-

 tional applications in softw are development (3-6)Professor Taylor. Permission required. Team approach to developing computer-based educational software using hypermedia, authoring languages, and programming languages. Some background in instructional design recommended. Special fee: \$75.

MSTU 6201-M STU 6204.
Advanced fieldwork (1-6) Permission required. Extended opportunities for students who have completed MSTU 5200.

MSTU 6401-MSTU 6404.

## Internship (1-6)

Permission required. Prerequisite: basic courses in the student's specialization, evidence of competence in the internship area, and prior arrangement with cooperating institution. Internship in schools, colleges, Teachers College facilities

Mathematics, Science, and Technology
such as the Microcomputer Resource Center, community agencies, business organizations, communication facilities. Students in their first term of study are generally not accepted.

## M STU 6532. Seminar in cogni-

 tive science (1-3)Professor Black. Permission required. In-depth discussion and critique of research proposed and conducted by others and by students in the class. Topics vary from term to term. Course is for advanced students who are designing and conducting their own research projects; they may take the course as many times as they like. Special fee: $\$ 25$.

MSTU 6600. Colloquium in Communication, Computing, and Technology in Education (0-3)
Professor McClintock and Faculty. Continuous participation required of certified doctoral students. M eets with M STU 4000. Discussion of critical issues, reading of key works, formal proposal of dissertation topics, presentation of work in progress, conversations with leaders in the field. Special fee: \$25.

MSTU 6901-M STU 6904.
Research and independent study in Communication, Computing, and Technology in Education (1-6)
Permission required. For doctoral students. The partici pating student will propose a program of independent research or project devel opment to a faculty member. Students in their first term of study are generally not accepted.

MSTU 7501-M STU 7504. Dissertation seminar (1)
Faculty. Permission required. Pre sentation of dissertation proposal for approval by a sponsoring committee. Student arranges one twohour meeting with his or her sponsoring committee.

## M STU 8900. Dissertation

advisement (0)
Advisement on doctoral dissertations. Fee: to equal 3 points at current tuition rate for each term. See section in catalog on Continuous Registration for Ed.D. degree.

M athematics Education
Program Coordinator: Professor Bruce R. Vogeli
(Code: TCA)
323 Thompson Hall, Box 210
Telephone: 212-678-3381
Fax: 212-678-8129
W EB Address:
http://www.tc.columbia.edu/ academic/mst/mathematics/ Please direct general admissions questions to the Office of Admissions, (212) 678-3710,
tcinfo@www.tc.columbia.edu. International applicants: Please direct inquiries about visas, employment, financial aid, and cultural adjustment to tcintl@columbia.edu.

## D egrees offered:

M aster of Arts (M.A.)
M aster of Science (M.S.)
M aster of Education (Ed.M.) Doctor of Education (Ed.D.) D octor of Education Certificate in the College Teaching of an A cademic Subject
(Ed.D.C.T.A.S.)
Doctor of Philosophy (Ph.D.)

## Special Application

Requirements/I nformation:
A pplications are reviewed on an ongoing basis. Preference in scholarship awards will be given to applicants who meet the priority deadline.

M athematics education students seeking M aster of Arts, $M$ aster of Science and $M$ aster of Education degrees are expected to have completed at least 30 credits of undergraduate mathematics.

A pplicants who wish to receive N ew York State teaching certification should apply to the M aster of Arts degree program. A student in this program who wants to qualify for N ew York State teaching certification must complete the program and file for certification prior to February 1, 2004. Teachers College is developing new programs to meet regulations that go into effect after February 1, 2004. These programs will be outlined in next year's catalog.

M athematics education students seeking D octor of Education or Doctor of Education in College Teaching of an academic subject degrees are expected to have completed an undergraduate major in mathematics.

M athematics education students seeking a D octor of Philosophy degreeshould have both undergraduate and master's degrees in their special ization.

## Program D escription:

Over its long and distinguished history, the Program in $M$ athematics Education has stressed the preparation of leaders in education. These leaders are successful scholars in their discipline, as well as theoretically and practically based educators. Faculty and staff are committed to the idea of leadership training through a variety of courses, workshops, and research experiences. M any of these are performed in collaboration with private, public, and parochial schools in the tristate metropolitan region.

Through funded projects, dissertation research, training and service to national teacher organizations, the faculty and students in mathematics education have hel ped frame the curriculum and methodology used in the school s of this and other nations. The M athematics Program emphasizes strong content preparation in a variety of areas of pure and applied mathematics relevant to education.

M aster's level offerings in mathematics are coordinated with methodology and supervision appropriate for both preservice and in-service teachers. Advanced master's and doctoral programs complete preparation for a variety of positions including: teaching, supervisory, and research roles spanning the elementary through college levels of instruction. Some courses offered through these programs are intended
especially for students from other areas of study at Teachers College who need to acquire knowledge and skills in mathematics but who do not wish to earn a degree in this area.

## M aster of Arts

Emphasis is placed on those competencies necessary for effective mathematics teaching as a means of enhancing professional growth of in-service and pre-service teachers. Conceptual issues in teaching are translated into practice through group and individualized instruction in special methods courses M aster of Arts requirements include a culminating scholarly project.

A minimum of 32 points of course work is required. Courses taken through these programs and el sewhere at Teachers College in mathematics, and mathematics education, and professional education to meet individual needs may be supplemented by courses taken in other Faculties of Columbia University.

## M aster of Education and M aster of Science

Both programs require 60 points (including up to 30 points of transfer credit for the Ed.M. and the M.S.) and invol ve extensive preparation in mathematics education. For the M.S. degree there is greater emphasis on preparation in mathematics content. In the Ed.M. program there is greater emphasis on preparation in professional education. Programs are arranged in consultation with the major professor to meet both Department and College requirements.

Applicants for the Ed.M. and M.S. degrees also must prepare a written integrative project.

## Doctoral Degrees

The Department provides programs for both the Ed.D. and the Ph.D. degrees. In general, the Ed.D. degree places emphasis on breadth of professional course work with a focus on educational practice. All candidates are required to be competent in statistical research methodology and computer programming, to have knowledge of the episte mol ogy of mathematics and of psychology sufficient to be an informed scholar-practitioner.

All doctoral candidates must have a written plan, approved by their advisor. The approved plan should then be forwarded to the Office of Doctoral Studies. Following submission of the statement of total program, the student normally completes doctoral course work and engages in doctoral research and writing. Refer to the Ph.D. and Ed.D. Require ments Bulletin, prepared by the Office of D octoral Studies, for a fuller description.

In planning a program of study, it should be noted that doctoral students are required to complete a minimum of twenty points after taking the certification examination for the first time, including points taking during the term in which that examination is taken.

## Specializations

## Elementary School Mathematics

The Elementary School M athe matics program is designed for those who are preparing for positions of leadership in ele mentary schools or in the training of elementary school teachers. Programs for elementary school special ists emphasize knowledge of subject matter, methodologies, and curricula of mathematics and include appropriate field experiences with elementary school students and teachers. In addition to program offerings, students
have access to courses in related departments and institutions.

## Secondary School Mathematics

The Secondary School Teaching program includes an in-service component for experienced teachers and pre-service educa tion for students entering the profession. In-service programs are designed individually in consul tation with a faculty advisor to reflect each teacher's background and goals. The pre service program stresses the direct application of theory to practice with particular emphasis on experiences with teaching strategies that match classroom activities to student characteristics, that examine teacher and student interpersonal interaction, and that reflect the historical and philosophical roots of the discipline. Students who require additional mathematics content in preparation for student teaching are advised to enroll in content courses in the summer preceding the academic year during which they enroll in student teaching.

## Supervision in Schools

Students interested in mathematics supervision in schools may elect to develop individual programs that reflect their specific background and interests and that draw on the resources of the Department and College, or they may work as part of the staff of the field-based teacher education programs. School and university faculty work with graduate students in a collaborative effort where teaching, pre service and supervision training, and education research are intimately related.

## Teacher Education in Mathematics

The Teacher Education in M athematics program is designed to prepare scholars for educational leadership roles as education professors in colleges
and universities. Participants in the program have opportunities to build their mathematics content background through content courses in the Department and the offerings of Columbia University. There are opportunities, also, for professional experiences in the pre service and in-service teacher education programs.

## College Teaching of an Academic Subject

Teachers College offers a doctorate in college teaching that emphasizes preparation in content coupled with a program of professional education. Field experiences can be pursued in mathematics, computing and several related disciplines. The course content and sequence are especially organized to meet the unique needs and career goals of each candidate within the general requirements of the Ed.D. degree at Teachers College.

C ourses open to non-majors A number of departmental offerings are suitable for nonmajors because of their nontechnical nature. See course descriptions that follow in the sections about specific programs. Consult advisors about other courses not listed.

## Mathematics

- M STC 4005, Teaching mathematics in diverse cultures
- MSTC 4019, Mathematics teaching and learning: learning theories, methods, and curriculum
- M STC 4025, Teaching computer mathematics
- M STC 4026, Teaching applied mathematics
- M STC 4039, M athematical foundations of programming
- M STC 4820, Basic J ava programming I
- MSTC 4821, Basic J ava programming II
- MSTC 4827, C++ programming workshop
- M STC 5010, Mathematics in the elementary school
- M STC 5020, M athematics in multicultural education
- MSTC 5037, History of mathematics


## D egree Requirements:

## Mathematics Education

Programming competencies in at least one computer language and further computer science training equival ent to at least 6 points of graduate study ordinarily are required of all students seeking degrees beyond the M aster of A rts. These points can either be included in the 42 point mathematics/ mathematics education require ment or can betaken as electives. In order to insure that prospective collegeteachers understand the history, organization and function of A merican higher education, all students, seeking degrees beyond the M aster of Arts, should enroll in at least two courses related to col lege teaching offered by other departments.

In addition to content courses in mathematics, students should enroll in at least two professional courses in mathe matics education including M STC 4019; M STC 4020; M STC 5012 or M STC 5520. All students are encourages to take M STC 5800-5801 for one to three points in at least two semesters. (Please see course lists below for descriptions.)

## Master of Arts

N ormally students complete 24 credits in courses in mathematics and mathematics education including M STC4019 (see course list below for descriptions) and sel ected courses in related disciplines such as statistics and computing. The remaining 8 credits ( 3 courses) are reserved for electives chosen from professional areas such as psychology, philosophy, curriculum, etc. It is recommended that students enroll in M STC 5800-5801 Colloquia in M athematics Education for one

Mathematics, Science, and Technology
to three points. Programs for specialists in the teaching of el ementary school mathematics should include M STF 5010. Secondary school specialists should enroll in M STC 5023, MSTC 5032, and M STC 5037. (See course list below for descriptions.)

Prospective community college teachers should select courses in at least three mathematical areas such as anal ysis, al gebra, computing, etc. in preparation for study beyond the master's level. Preparation in computing is recommended for all three specializations. Teachers desiring a specialization in computing should enroll in MSTC 4036, M STC 5028 and MSTC 5029. M STC 4820 and MSTC 4827 are also recommended. (See course list below for descriptions.) Pre-service students should refer to the program brochure for information on additional requirements for state certification. All applicants for the M.A. degree must prepare a written project as a culminating integrative experience.

## Master of Science

N ormally the program of studies for the M aster of Science (M.S.) degree should include 42 points in courses in mathematics and mathematics education. Preparation in mathematics content should be of sufficient depth in two or three areas to communi cate content effectively at the freshman and sophomore college levels. Algebra and anal ysis are recommended as areas of concentration. Content courses can be selected from courses offered by the Department or from courses offered by the G raduate faculty of Columbia U niversity. Preparation in computing and statistics is al so recommended.

## Master of Education

Typically the program of studies for the M aster of Education (Ed.M.) degree should include 42 points in courses in mathematics and mathematics education. Preparation in mathematics content should be of sufficient depth to provide leadership to elementary and secondary school teachers. Content courses can be selected from courses offered by the Department or from courses offered by the G raduate Faculty of Columbia U niversity. Students interested in developing research competencies for further graduate study should elect at least 6 points preparation in statistics. HUDM 4122/H U DM 5123 Probability and statistical inference/experimental design are recommended.

## Doctoral Degrees

All candidates for the Ed.D., Ed.D., C.T.A.S., or Ph.D. degrees are expected to demonstrate both mathematics and mathematics education competencies through a series of certification examinations taken upon the completion of 60 graduate points. Certification examinations test the student's knowledge of current research and theory in mathematics education and mathematics content. Examinations are offered once in the A utumn, Spring, and Summer terms. Courses recommended as preparation for the examinations include M ST 4019/4020 and 6000 level mathematics content courses.

Students must demonstrate acceptable proficiency in at least three of the following six mathematics content areas: al gebra, anal ysis, computer mathematics, foundations of mathematics, geometry, and probability and statistics. Students may sit for the examination in mathematics content during the regular certification
examination times. Alternatively, they may register for: M STC 5031, M STC 5032, M STC 4036, M STC 6030, M STC 6033, M STC 6034, or M STC 6126 and, with permission of the Department, sit for the content area certification examination upon completion of the course.

Doctoral students whose theses require statistical analysis should include appropriate statistics courses in their programs. These points can be included either in the mathematics/mathematics education requirement or can be taken as electives.

## Doctor of Education

A program of study for the Doctor of Education (Ed.D.) degree must include a minimum of 90 semester hours of approved graduate credit, at least 45 points of which must be taken under Teachers Col lege registration. In order to permit the acquisition of broad basic schol arship, each program of study should include at least 70 points in mathematics and mathematics education and 20 points in related disciplines.

Ordinarily, points in mathematics and mathematics education should include at least 45 points in mathematics content courses, 12 points in mathematics education courses, and 12 points of research preparation including M STC 6500 and M ST C 7500. (See course listing below for descriptions.)

Professional courses taken outside the program of $M$ athematics Education normally should include 15 points in the curricular, psychological, and social foundations of education. Students special izing in teacher education are encouraged to select el ective courses related to higher education programs and practices. Prospective mathematics supervi sors should select courses relevant to curriculum
design, supervision, evaluation, and educational administration.

Preparation in computing and statistics is al so recommended. Programming competencies in at least one computer language and further computer science training equival ent to at least 6 points of graduate study are desi rable. Students whose the ses involve statistical anal ysis are required to include appropriate statistics courses in their programs. These points can be included either in the mathematics/mathematics education requirement or can betaken as electives.

The Ed.D. culminates in a scholarly project contributing knowledge to the field and should be planned early in the doctoral program when sufficient advanced courses have been completed to permit the candidate to enroll in relevant research courses and pertinent advanced study to enable efficient preparation of the project. Dissertations in mathematics education can be (1) experimental studies in learning, (2) design and formative evaluation of mathematics curricula, or (3) analytical studies in policy the ory in mathematics education.

## Doctor of Education in the College Teaching of an Academic Subject

The Program in M athematics Education at Teachers College offers a program of study leading to the Doctor of Education Degree in the College Teaching of $M$ athematics (Ed.D.C.T.A.S.) to preparestudents for positions as teachers of mathematics in two- and four-year colleges.

This degree program is designed to devel op both the depth and breadth in the students' knowledge of mathematics, but is intended to prepare graduates for careers in teaching than in mathematics research. For further details concerning general degree
requirements, students should consult the bulletin, "Requirements for the Degree of D octor of Education in the College Teaching of M athematics", available in the Office of Doctoral Studies.

A program of study for the Ed.D.C.T.A.S., degree must include a minimum of 90 semester hours of approved graduate credit, at least 45 points of which must betaken under Teachers College registration. In order to permit the acquisition of broad and basic scholarship, each program of study should include at least 75 points in mathematics and mathematics education, with at least 24 points in advanced courses and 15 points in professional educational disciplines, and including at least two courses related to higher education programs and practices.

Ordinarily, points in mathematics and mathematics education should include at least 50 points in mathematics content courses, three points in either M ST C 5012 or M STC 5520 and 12 points of research preparation including M STC 6500 and MSTC 7500. (See course listing below for description). Preparation in mathematics content should be of sufficient depth in three areas to communicate content effectively at the freshman and sophomore college levels. Algebra and analysis are recommended as initial areas of concentration. Content courses can be sel ected from courses with the Department or from courses offered by the Graduate Faculties of Columbia University.

Candidates for the Ed.D. in College Teaching who have not completed at least one year of full-time service as a college teacher of mathematics/computing/statistics are required to include MSTC4600 within their doctoral programs. (See course listing below for
description). Interns will teach college mathematics courses under the supervision of experienced college teachers for a period of at least one semester.

## Candidates for the

Ed.D.C.T.A.S. are required to demonstrate competency in one language chosen from among French, German, and Russian. Students who require other languages for the preparation of their theses may petition the department to request substitution. Students in mathematics may not use computer Ianguages to satisfy the language requirement.

The Ed.D.C.T.A.S. degree requirements include a scholarly project contributing knowledge to the field and should be planned early in the doctoral program when sufficient advanced courses have been completed to permit the candidate to enroll in relevant research courses and pertinent advanced study to enable efficient preparation of the project. Dissertations in the college teaching of mathematics can be (1) experimental studies in adult learning, (2) design and formative eval uation of college mathematics curricula, or (3) analytical studies in policy theory in mathematics post secondary education.

## Doctor of Philosophy

The Doctor of Philosophy (Ph.D.) degree emphasizes research competencies. The degree requires a scholarly dissertation of intellectual merit and sound research methodology. Thesis research may include analytical studies of the process of teaching or of the construction and evaluation of curriculum material, experimental studies of the teaching-learning process, including studies of verbal learning and laboratory practice, or historical studies.

Candidates are encouraged to develop an association with a faculty member early in their studies to identify a problem area of mutual interest, to plan a course of studies that leads to the competencies needed to complete dissertation research and prepare for a professional role. Further details are available in the D epartmental brochure on doctoral programs and in the general descriptions of doctoral programs available from the Office of D octoral Studies.

A program of study for the D octor of Philosophy degree must include at least 45 points taken under Teachers College registration. In order to permit the acquisition of broad and basic scholarship, each program of study should include at least: 60 points in mathematics, mathematics education, statistics and computing. At least 30 points should be in advanced courses-including research courses (M STC 6500, M STC 7500). (Any Teachers College course at the 6000 level or above, any Columbia University Graduate School of Arts and Sciences course with a "G" prefix, any "W " course numbered above 4000, or any transferred course with a graduatelevel prerequisite will be considered an advanced course.) Further, 15 points in the philosophical, psychol ogical, and curricular foundations of education, must be included in every Ph.D. program.

Candidates for the Ph.D. degree are required to demonstrate competency in two languages chosen from among French, German, and Russian. Students who require other languages for the preparation of their thesis may petition the Department to request substitution. Students in mathematics may not use computer Ianguages or statistics to satisfy the language requirement.

The Ph.D. dissertation is a scholarly study contributing new knowledge to the field and should be planned early in the program when sufficient advanced courses have been completed to permit the candidate to enroll in relevant research courses. Ph.D. dissertations in mathematics education should be (1) experimental studies in learning, (2) analytical studies in policy, theory in mathematics education, or (3) other scholarly investigations of problems and issues of broad significance in the field.

## Courses:

## Mathematics Education

For certain courses in the program in M athematics Education, special fees, including laboratory fees, may be assessed.

## Theory and Methods

MSTC 4019. Mathematics teaching and learning: learning theories, methods, and curriculum (3) Professor Vogeli. Cognitive development and learning strategies for teaching and the use of instructional materials. Curriculum devel opment techniques. Required for pre-service students.

M STC 4020. Mathematics teaching and learning: historical perspectives, special students, and research (3)
Faculty. H istorical/comparative study of mathematical education programs in the U nited States and abroad. M athematics education with special student populations. Current research in mathematics education.

## M STC 4025. Teaching computer

 mathematics (3)Faculty. A review of teaching methods and curricular innova tions in computing and computer mathematics.

## M STC 4026. Teaching applied mathematics (3)

Faculty. The role of applications in mathematics curriculum. M athematical models, use of cal culators and computers. A pplications in the natural and the social sciences.

Mathematics, Science, and Technology

M STC 5010. Mathematics in the elementary school (3)
Professor Vogeli. Problems, issues, and methods in the teaching and supervision of el ementary school mathematics.

M STC 5011. Mathematics in the secondary school (3)
Professor Vogeli. Problems, issues, and methods in the teaching and supervision of secondary school mathematics. Includes field expe riences. Required for pre-service students.

M STC 5012. Mathematics in two- and four-year colleges (3) Faculty. Problems, issues, and methods in the college teaching of mathematics.

M STC 5020. Mathematics and multicultural education (1-3) Faculty. Survey of mathematical topics and methods appropriate for multicultural and bilingual programs.

M STC 5022. Mathematics curriculum development (2-3) Professor Vogeli. Principles, strate gies, and techniques for curriculum development and textbook preparation in mathematics.

M STC 5023. Problem solving (3) Faculty. Theories and methods of mathematical problem solving with applications to classroom instruction.

M STC 5520. Seminar in the college teaching of mathematics (3) Faculty. Current issues in undergraduate mathematics. Examination of relations between elementary and advanced mathematics. See also: listings under Program for Preservice M athematics Teacher Education.

## M STC 5061. Evaluation in

 mathematics education (3)Faculty. Theories and methods of evaluating pupils and programs in the cognitive and effective domains.

## Content Courses

Courses in mathematics review and extended competencies that support graduate study and research in mathematics education, statistics, computing, and in other fields such as science education, measurement and evaluation.

M STC 4031. Number theory (3) Faculty. Primes, composites, divisibility and factorization, congruence, historical topics.

M STC 4032. Mathematical models in the behavioral sciences (3) Dr. Pollack. Design and development of mathematical models of human behavior, including social, political, management, and defense models.

M STC 4036. Discrete mathematics (3)
Dr. Pollack. Discrete mathematics, combinatorics, graph theory.

M STC 4037. Computer graphics (3)

Faculty. Transformations, scaling, clipping, windowing, and hidden line al gorithms. Software development for applications to mathematics and science education.

## M STC 4038. Finite mathematics

 (3)Faculty. Statements, propositions, and sets. Vectors and matrices. Probability. A pplications: finite M arkov chains, game theory.

M STC 4039. Mathematical foundations of programming (3)
Faculty. Logic, Boolean al gebra, switching circuits, Turing machines and computability.

M STC 4820. Basic Java programming I (3)
Faculty. An intensive course in J ava Programming including classroom applications.

M STC 4821. Basic Java programming II (3)
Faculty. An intensive course in J ava Programming including classroom applications.

M STC 4827. C++ programming workshop (3)
Faculty. Types, operators, and expressions in $\mathrm{C}++$. Functions, program structure. Pointers, arrays, classes and objects.

M STC 5027. Numerical methods and computability (3)
Faculty. N umber representation. Uncertainty and error. N umerical solution of al gebraic equations and systems. N umerical cal culus. Numerical solution of differential equations.

M STC 5028. Pascal/data structures (3)
Professor Vogeli. Datatypes and structures, stacks, queues, linked lists, trees, graphs, hashing.

M STC 5029. Fundamental algorithms (3)
Professor Vogeli. Searching and sorting al gorithms. Graph, tree, and network al gorithms.

M STC 5030. Topics in probability theory (3)
Faculty. Simple, compound, and conditional probabilities and applications. Doctoral students should register for M STC 6030.

M STC 5031. Topics in the foundations of mathematics (3)
Faculty. Propositional and predicate calculi, set theory, axiomatics, order types, and the linear continuum.

M STC 5032. Topics in geometry/ topology (3)
Dr. Smith. Foundation of geometry/topol ogy. Emphasis upon the relationship between topology and geometry and other mathematical areas.

M STC 5033. Topics in algebra (3) Faculty. Groups, rings, fields. D octoral students should register for M STC 6033.

## M STC 5034. Topics in analysis

 (3)Faculty. Real or complex functions and their properties. Doctoral students should register for MSTC 6034.

M STC 5035. Mathematical models in the natural sciences (3)
Dr. Pollack. Simulation, information theory and coding, stochastic models, probabilistic systems, simple harmonic motion.

MSTC 5037. History of mathematics (3)
Faculty. Historical development of major ideas in mathematics. Contributions of noteworthy mathematicians. A nal ysis of mathematical classics.

## M STC 5038. Topics in mathe-

 matical logic (3)Faculty. Goedel's completion theorem, Church-Turing thesis,
G oedel's incompleteness theorem.

M STC 5126. Mathematical foundations of statistics (3)
Faculty. Prerequisite: M ST C 5030 or M STC 6030. Estimation, hypothesis testing, and tests based on the chi-square distribution. The normal distribution and its applications. Anal ysis of variance and regression. Doctoral students
should register for M STC 6126.
M STC 6030. Advanced topics in probability theory (3)
Faculty. Open only to doctoral students. Emphasis on proof and advanced applications.

## M STC 6033. Advanced topics in

 algebra (3)Faculty. Open only to doctoral students. A dvanced study of groups, rings, and fields.

M STC 6034. Advanced topics in analysis (3)
Faculty. Open only to doctoral students. A dvanced study of real or complex functions.

M STC 6126. Advanced topics in the mathematical foundations of statistics (3)
Faculty. Open only to doctoral students. Prerequisite: M STC 5030 or M STC 6030. Advanced topics including hypothesis testing, distribution theory and analysis of variance and regression.

## Program for Pre-service

 Mathematics Teacher EducationProgram Advisors: Staff
M STC 4005. Teaching mathematics in diverse cultures (1-3) Faculty. Principles, techniques, and issues in the teaching of mathematics in other cultural and national settings. Study tour of schools and institutions in various nations.

M STC 4023. Mathematics for exceptional students (3)
Faculty. Content, methods, and instructional models for teaching exceptional students.

M STC 4760. Student teaching in mathematics (4)
Faculty. Permission required. Prerequisite: M STC 5011. Open only to students enrolled in the pre-service program. Students do supervised teaching in metropolitan area schools.

M STC 5010. Mathematics in the elementary school (3)
Professor Vogeli. Problems, issues, and methods in the teaching and supervision of elementary school mathematics.

M STC 5011. Mathematics in the secondary school (3)
Professor Vogeli. Problems, issues, and methods in the teaching and supervision of secondary school mathematics. Includes field experiences. Required for pre-service students.

## M STC 5061. Evaluation in

 mathematics education (3) Faculty. Theory and methods of evaluating pupils and programs in the cognitive and affective domains.M STC 5264. Guided supervision of student teaching in mathematics (2)
Faculty. Permission required. Open only to doctoral students. Guided field experience in supervising student teachers.

Independent, Advanced and Dissertation Study
M STC 4901. Guided study in mathematics education (1 or more)
Faculty. Permission required from the instructor with whom the student wishes to work. Independent study in selected areas.

M STC 5800-M STC 5801. Mathematics colloquium (1-3)
Dr. Pollak. Lecture series featuring presentations by distinguished guest speakers.

## M STC 6400. Internship in

 mathematics education (1-6) Permission required. Supervised intern service in a variety of field settings including classroom teaching at various levels, supervision, curriculum development, and in-service education.M STC 6500-M STC 6501.
Research seminar in mathematics education (1-3)
Professor Vogeli. Permission required. Research oriented seminars dealing with a variety of issues and leading to preparation of preliminary proposals for the doctoral dissertation. Required for doctoral students. After initial registration for credit, doctoral stu-
dents who wish to register in subsequent semesters may do so for 0 credits.

M STC 6901. Research and independent study in mathematics education (1 or more)
Permission required. Guided independent study leading to the preparation of a major project or paper. M ay be taken repeatedly by doctoral candidates engaged in research.

M STC 7500. Dissertation seminar in mathematics education (0-3)
Development of final doctoral dissertation proposals and presentation of proposals for departmental review.

M STC 8900. Dissertation advisement in mathematics education (0)
Individual advisement on doctoral dissertations. Fee: to equal 3 points at current tuition rate for each term. For requirements, see section in catal og on Continuous Registration for Ed.D./Ph.D. degrees.

M STC 9900. Research and independent study in mathematics education (1 or more) Permission required. Open to postdoctoral students accepted for study at Teachers College.

## Science Education

Program Coordinator: Professor A ngel a Cal abrese Barton 412A Main Hall, Box 210
Telephone: 212-678-8224
Fax: 212-678-8129
W EB Address:
http://www.tc.columbia.edu/ academic/mst/science Please direct general admissions questions to the Office of Admissions, (212) 678-3710, tcinfo@www.tc.columbia.edu. International applicants: Please direct inquiries about visas, employment, financial aid, and cultural adjustment to tcintl@columbia.edu.

## D egrees offered:

M aster of Arts (M.A.)
M aster of Science (M.S.)
M aster of Education (Ed.M.)
Doctor of Education (Ed.D.)
Doctor of Education Certificate
in the College Teaching of an
A cademic Subject
(Ed.D.C.T.A.S.)
D octor of Philosophy (Ph.D.)
Codes:
TCB Science Education: Ph.D.
TCE Elementary School Science Education: M.A., M.S., Ed.M. Ed.D.
TCH Secondary School Science Education: M.A., M.S., Ed.M., Ed.D.
TCP College Teaching of Physical Science: Ed.D.C.T.A.S.
TCQ College Teaching of Earth Science: Ed.D.C.T.A.S.
TCR College Teaching of Biological Science: Ed.D.C.T.A.S.
TCT Education of Teachers of Science: Ed.M., Ed.D.
TCX Supervision in Science Education: M.A., M.S., Ed.M., Ed.D.

## Special Application

Requirements/Information:
A pplications are reviewed on an ongoing basis. Preference in scholarship awards will be for those applicants who meet the priority deadline. Preservice Science Education M.A. applicants may refer admissions questions to Professor K eith Sheppard (212) 678-3425, sheppard@exchange.tc. columbia.edu.

Applicants who wish to receive New York State teaching certification should apply to the Master of Arts degree program.

A student in this program who wants to qualify for N ew York State teaching certification
must complete the program and file for certification prior to February 1, 2004. Teachers College is developing new programs to meet regulations that go into effect after February 1, 2004. These programs will be outlined in next year's catal og.

Science education students seeking M aster of A rts, M aster of Science and Doctor of Education degrees should have at least the equival ent of a major concentration in science.

Science education students seeking a D octor of Education in College Teaching of an A cademic Subject degree should have the equival ent of an undergraduate major in one science and some course work in a second science and mathematics. The master's degree is recommended.

Science education students seeking a D octor of Phil osophy degree should have both undergraduate and master's degrees in their specialization.

## Program D escription:

Throughout its long and distinguished history, the Science Education Program has stressed the preparation of leaders in education. These leaders are successful scholars in their discipline, as well as theoretically and practically based educators. The faculty and staff are committed to the idea of Ieadership training through a variety of courses, workshops, and research experiences. M any of these are performed in collaboration with private, public, and parochial schools in the tristate metropolitan region.

Through funded projects, dissertation research, training and service to national teacher organizations, the faculty and students in science education have hel ped to frame the curriculum and methodology used in the schools of this and other nations. Science courses are

Mathematics, Science, and Technology
organized around a global systems perspective so that resources, natural phenomena and the human impact on nature can be investigated and translated into new science curricula.

M aster's level offerings in science content are coordinated with methodology and supervision appropriate for both pre service and in-service teachers. Advanced master's and doctoral programs complete preparation for a variety of positions including teaching, supervisory, and research roles spanning the elementary through college levels of instruction.
Some courses offered through these programs are intended especially for students from other areas of study at Teachers College who need to acquire knowledge and skills in science but who do not wish to earn a degree in these areas.

## M aster of Arts

Emphasis is placed on those competencies necessary for effective science teaching as a means of enhancing professional growth of in-service and pre-service teachers. Conceptual issues in teaching are translated into practice through group and individualized instruction in special methods courses. M aster of Arts requirements include a culminating schol arly project.

A minimum of 32 points of course work is required.
Courses taken through these programs and el sewhere at Teachers College in science, science education, and professional education to meet individual needs may be supplemented by courses taken in other Faculties of Columbia U niversity. Preservice Science Education M.A. applicants may refer admissions questions to Professor K eith Sheppard (212) 678-3425, sheppard@exchange.tc. columbia.edu.

## M aster of Education and Master of Science

Both programs require 60 points (including up to 30 points of transfer credit for the Ed.M. and 28 for the M.S.) and involve extensive preparation in science education. For the M .S. degree there is greater emphasis on preparation in science content. In the Ed.M . program there is greater emphasis on preparation in professional education. Programs are arranged in consultation with the major professor to meet both Department and College requirements.

Applicants for the Ed.M. and M.S. degrees also must prepare a written integrative project.

## Doctoral Degrees

The Department provides programs for both the Ed.D. and the Ph.D. degrees. In general, the Ed.D. degree places emphasis on breadth of professi onal course work with a focus on educational practice. All candidates are required to be competent in statistical research methodology and to have knowledge of the epistemology of science and of psychology sufficient to be an informed scholar-practitioner.

All doctoral candidates must have a written plan, approved by their advisor. The approved plan should then be forwarded to the Office of D octoral Studies. Following submission of the statement of total program, the student normally completes doctoral course work and engages in doctoral research and writing. R efer to the Ph.D. and Ed.D. Requirements Bulletin, prepared by the Office of D octoral Studies, for a fuller description.

In planning a program of study, it should be noted that doctoral students are required to complete a minimum of twenty points after taking the certification examination for the first
time, including points taking during the term in which that examination is taken.

## Specializations

## Elementary School Science

The Elementary School Science program is designed for those who are preparing for positions of leadership in el ementary schools or in the training of elementary school teachers. Programs for el ementary school special ists emphasize knowledge of subject matter, methodologies, and curricula of science and include appropriate field experiences with elementary school students and teachers. In addition to program offerings, students have access to courses in related departments and institutions.

## Secondary School Science Teaching

The Secondary School Teaching program includes an in-service component for experienced teachers and pre-service education for students entering the profession. In-service programs are designed individually in consultation with a faculty advisor to reflect each teacher's background and goals. The preservice program stresses the direct application of theory to practice with particular emphasis on experiences with teaching strategies that match classroom activities to student characteristics, that examine teacher and student interpersonal interaction, and that reflect thehistorical and philosophical roots of the discipline. Students who require additional science content in preparation for student teaching are advised to enroll in content courses in the summer preceding the academic year during which they enroll in student teaching.

## Supervision in Schools

Students interested in science supervision in schools may elect to devel op individual programs that reflect their specific back-
ground and interests and that draw on the resources of the Department and College, or they may work as part of the staff of the field-based teacher education programs. School and university faculty work with graduate students in a collaborative effort where teaching, pre-service and supervision training, and education research are intimately related.

## Teacher Education in Science

The Teacher Education in Science program is designed to prepare scholars for educational leadership roles as education professors in colleges and universities. Participants in the program have opportunities to build their science content background through content courses in the D epartment and the offerings of Columbia U niversity. There are opportunities, also, for professional experiences in the pre-service and in-service teacher education programs.

## College Teaching of an Academic Subject

Teachers College offers a doctorate in college teaching that emphasizes preparation in content coupled with a program of professional education. Field experiences can be pursued in mathematics, computing and several science disciplines. The course content and sequence are especially organized to meet the unique needs and career goals of each candidate within the general requirements of the Ed.D. degree at Teachers College.

Courses open to non-majors A number of departmental offerings are suitable for nonmajors because of their nontechnical nature. See course descriptions that follow in the sections about specific programs. Consult advisors about other courses not listed.

## Science

- MSTC 4040, Science in childhood education
- MSTC 4043, Science in the environment
- MSTC 4044, Biology methods and curriculum laboratory
- MSTC 4048, Structure of physical science knowledge and curriculum design
- MSTC 4056, Earth science I: space and sky
- MSTC 4057, Earth science II: materials and processes
- MSTC 4140, Laboratory methods and experiences for elementary school teachers
- MSTC 4558, Seminar in environmental sciences for secondary and college teaching
- MSTC 5040, Science curriculum improvement in the elementary school
- MSTC 5042, Science, technology, and society
- M STC 5052-M STC 5053, Biochemistry and cell biology
- MSTC 5152, Biochemistry and cell biology laboratory


## Science Education

## M aster of Arts

Emphasis is placed on those competencies necessary for effective science teaching as a means of enhancing professional growth of in-service and prepractice through group and individualized instruction in a general methods course and in courses applicable to specific sciences.

A minimum of 32 points of course work is required, plus an integrative essay written in the final semester. (The pre-service program requires a 36-point program.) Courses taken in this and other departments of Teachers College in the sciences, science education, and professional education to meet individual needs are supple mented by courses taken in other Faculties of Columbia University. No course work may be transferred from other institutions as part of this 32-
point requirement. Only 8 points earned in this Department as a non-degree student may be included in the 32. Student teaching may not be completed before matriculation.

Emphasis is placed on enhancement of science content mastery through appropriate graduate course work either in the candidate's discipline or to increase the breadth of knowledge in other science disciplines at Teachers College and elsewhere within Columbia U niversity. A ppropriate allocation of professional education courses is recommended to meet State certification requirements. A minimum of $9-12$ points in the breadth of science content, with sufficient depth in one area of specialization to communicate content effectively is required. Also, 9-12 points of general professional education are required. Students must complete 6 points of science education/professional science competencies courses, the remaining points to betaken in electives determined in consultation with an advisor.

For pre-service candidates, i.e., those who intend to fulfill the requirements of N ew Y ork State for certification to teach science in secondary schools, M STC 4000 and M STC 4363 are required and should precede the semester in which student teaching is completed. M STC 4000 and M STC 4363 are both offered in the Fall and student teaching in the Spring

Other requirements that must be met beforegraduation include: (1) a passing score on the $N$ ew York State Teachers Examinations: Liberal Arts and Science Test (LAST) and the Secondary A ssessment of Teaching Skills-W ritten (ATS-W ), (2) attendance at two State approved sessions; Child-A buse and Substance A buse, (3) successful completion of a course in multicultural education, (4)
for those students wishing certification in N ew York City, 3 credits in special education, and (5) completion of M STC 4041, Science safety workshop (0).

## Master of Science and Master of Education

The Science Education program offers curricula leading to a $M$ aster of Science (M.S.) degree and a $M$ aster of Education (Ed.M.) degree. Both programs require a minimum number of graduate points of course work and a master's paper (see below). The master's paper for either degree does N OT carry graduate credit but students can register for 1 or 2 credits of independent study (M STC 4900) as a method of allowing time to work on the paper.

The M.S. and Ed. M. degrees require a program planned in consultation with an advisor who may al so sponsor the master's paper. The M.S. degree requires more science subject matter course work than the Ed.M. degree, while the Ed.M. degree requires more intensive work in education including science education. The M.S. degree is recommended for science educators who want a professional degree with intensive preparation in science subject matter. This degree is especially appropriate for prospective community college instructors who do not intend to pursue a doctorate immediately. The Ed.M. degree is recommended for science educators who want a professional degree with intensive preparation in science education. Both programs include study to some depth in science, work in the candidate's special ization, and the development of some competence in method of scholarly analysis. Credit obtained in either program may be applied toward the Ed.D. when the candidate shows clear promise of success in further graduate studies and schol arly analysis.

## Master of Education

A minimum of 24 points in breadth of science content, but with sufficient depth in a specialization to communicate content effectively are required. Students are required to complete at least 9 points in professional education courses as well as 9 points in science education professional competencies. 3-6 points in statistics and/or research design are also required. This leaves a remaining 12-15 points of optional studies to be determined in consultation with the advisor.

## Master of Science

A minimum of 30 points in breadth of science content, but with sufficient depth in a specialization to communicate content effectively are required. Students are required to complete at least 9 points in professional education courses as well as 6 points in science education professional competencies. 3-6 points in statistics and/or research design are also required. This leaves 9-14 points of optional studies to be determined in consultation with the advisor.

M aster's Paper
For the M.S. and the Ed. M. degrees in the Science Education Program, a master's paper will be required. This paper may be an extension of some paper that has been prepared for a course included in the program of the student. The paper may take a variety of forms. It may be a report of an empirical investigation, or it may be a library type research paper dealing with some problem in which the candidate has a special interest. The form of the paper should be carefully chosen in the context of the candidate's professional goals. The M.S. paper, however, must address a problem in science content either through scientific laboratory research, a synthesis of scientific knowledge

Mathematics, Science, and Technology
from the literature, and/or the production of a novel model synthesizing data. The latter may be a computer-level simulation or theoretical model of scientific phenomena. The M.S. paper may be a research thesis in basic science within the candidate's field of specialization, as a compliment to the Ed.D. dissertation which may be more educationally oriented.

The Ed.M. thesis should focus more on science education topics and can be either a synthesis of information or an empirical study. The paper may form the basis for a subsequent doctoral dissertation. In other cases, it may be the culmination of studies that have been carried out in the 60-point master's degree program.

The paper should be planned and prepared in cooperation with a full-time member of the Science Education Program staff. It should be approved by a full-time member of this staff before the application is made for the degree. H ence, the master's paper is a D epartmental requirement for the M.S. and/or the Ed.M . degree. Its acceptance needs to be noted on the candidate's application for the award of either the M.S. or Ed.M. degree. H owever, the approved paper is not to be submitted to the Office of the Registrar as part of general col-lege-wide degree requirements but will remain in the Departmental files.

## Doctor of Education and Doctor of Education in the College Teaching of an Academic Subject

The Science Education Program offers curricula leading to the degree of D octor of Education (Ed.D.) There are two Ed.D. programs: (1) the Ed.D. for a variety of careers including college teaching of science education or for professional positions in elementary and secondary schools, and (2)
the Ed.D. in College Teaching of an A cademic Subject (Ed.D.C.T.A.S.). These programs are intended to prepare students for leadership in science education. The programs are designed to prepare professional science educators who are (1) educated both broadly and deeply in science subject matter, (2) competent in methods of scholarly anal $y$ sis, and (3) have a deep understanding of education and science education. Students should also consult the bulletin "R equirements for the Degree of Doctor of Education", available from the Office of D octoral Studies, for college-wide Ed.D. requirements.

A minimum of 30 points in breadth of science content, but with sufficient depth in a specialization to communicate content effectively are required. Students are required to complete at least 12 points in professional education courses as well as 21 points in science education professional compe tencies. Six points in statistics and/or research design are al so required. This leaves a remaining 21 points of optional studies to be determined in consultation with the advisor.

The student, in consultation with an advisor, plans a program of study consistent with the student's prior education and oriented toward professional goals. This program plan is approved by the advisor and then submitted to the Office of D octoral Studies. In planning a program of study, the student would be wise to pay particular attention to the time when the certification exam is taken. Students are required to complete a minimum of twenty points after taking the certification examination for the first time, including points taken during the term in which that examination was taken.

The certification examination is ordinarily taken no later than the term in which the student completes 60 points of graduate study. A special certification examination is designed for each candidate. U sually, it consists of a three-hour essay examination in the candidate's field of specialization in science education and a two-hour oral examination with at least two professors of the Department participating. The certification oral examination consists of a short formal presentation on a topic in science selected by the candidate followed by a period of general questions on science content and methodology of scientific inquiry.

Dissertation G uiddines Candidates in the Ed.D.C.T.A.S., are recommended to plan an M.S. paper in experimental or theoretical science in their field of science specialization. The M.S. is taken in regular course toward the Ed.D.C.T.A.S., and contributes to the total points required for the Ed.D. degree.

The Ed.D. dissertation is a scholarly endeavor contributing new knowledge to the field and should be planned early in the doctoral program when sufficient advanced courses have been completed to permit the candidate to enroll in relevant research techniques courses and pertinent advanced study to enable efficient and high quality preparation of the thesis. Dissertations in science education can be (1) experimental studies in learning, (2) design and formative evaluation of science curricula, or (3) anal ytical studies in policy theory in science education. The candidate is recommended to seek an advisor within the department who can best guide the design and completion of the type of thesis chosen.

## Doctor of Philosophy

This program is designed to prepare students for leadership in science education. The program includes advanced preparation in science to develop both breadth and depth in science subject matter background. Preparation in research methods in science education as well as study of recent developments in the broad field of professional education is included in the program. Students should refer to the bulletin, "R equirements for the Degree of Doctor of Philosophy," available from the Office of Doctoral Studies, for information on admission, residence, certification, examinations, foreign language requirement, and the dissertation. The general requirement is for a minimum of 75 points of approved graduate credit, at least 45 points of which must be taken through Teachers College registration. Science Education is both the major field and the area of specialization for the Ph.D. in the Department of Scientific Foundations.

In order that candidates become familiar with recent investigations in the broad fields of professional education, each program will include one or more courses in the nature of education and the nature of persons and the learning process. Each program will contain no less than 13 points in the broad and basic areas of professional scholarship. No more than 9 points of " $R$ " will be credited. In most cases these courses will be taken in the Graduate Faculties.

A minimum of 50 points in the students special ization are required, including 6-9 points in the foundations of science education, giving students a foundation in the philosophies and approaches to modern science education; 0-8 points in science education research courses, and 40 points in their
science subject matter. Students are required to complete at least 13 points in broad and basic areas of professional schol arship, including, the nature of education and the nature of persons and the learning process. Students are required to complete 12 points of seminars and research methods courses as well, including MSTC7501 and M STC8901 (See course list below for description.)

D issertation Requirements In addition to all other guidelines, it should be noted that the thesis must be a research thesis based on a theoretical rationale and exhibit thorough and comprehensive mastery of a research discipline. A final chapter that addresses the conclusions of the research and its implications for education is required.

## Courses:

## Science Education

Program Advisors: Professors 0. Roger Anderson, Angela Cal-abrese-Barton, Elaine V. H owes, and K eith Sheppard. For certain courses in the program in Science Education, special fees, including laboratory fees, will be assessed. The amounts and courses involved will be announced each semester in the Course Schedule Booklet for that semester.

## Theory and Methods

M STC 4000. Science in secondary school (3)
Professor Sheppard. Foundations of science education. Planning, assessment, and management of instruction. Required of preservice science students.

M STC 4040. Science in childhood education (2-3) Professor Howes. Corequisite: M STC 4140. Introduction to the creation of science curriculum and instruction that attend to current state and national standards. Based in constructivist perspectives and the goal of teaching science well with all children.

M STC 4048. Structure of physical science knowledge and curriculum design (2-3)
Faculty. A nalyses of the organization of and relationships between concepts, laws, and theories in the physical sciences, using a variety of analytical techniques suitable for curriculum design.

M STC 5040. Science curriculum improvement in the elementary school (3)
Faculty. Permission required. Designed for experienced elementary educators. Prerequisites:
M STC 4040 and M STC 4140, or one year full-time el ementary teaching experience. Exploration of K - 6 science programs and materials with application to classroom programs as well as to school and district level curriculum development.

M STC 5042. Science, technology, and society (3)
Faculty. The nature and interrelationships of science, technology, and society as represented in policy and curriculum for education.

## M STC 5540. Seminar in college

 teaching of science (3)Faculty. Critical study of programs, objectives, content, methods, and research studies in science teaching at post-secondary institutions.

## Laboratory and <br> Curriculum Methods

These courses provide extensive experience with laboratory and curriculum materials used in science teaching. The elementary school laboratory focuses on expe riences with science materials in childhood education. The secondary science laboratory courses al so require critical study and evaluation of current curricular materials, including new apparatus and techniques for laboratory study.

## M STC 4043. Science in the environment (2-3)

Professor H owes. Exploration of environmental science from an earth physiology perspective. Focus on connections between contemporary environmental issues and envi ronmental science concepts. A community study utilizing scientific inquiry procedures and applying pertinent environmental science concepts will be conducted.

M STC 4044. Biology methods and curriculum laboratory (3) Professor Anderson and Mr. Covotsos. Theoretical basis of secondary school science education and its practical application to biology teaching and laboratory experiences.

## M STC 4045. Earth and environmental science curriculum and

 methods laboratory (3)Faculty. Prerequisite: M STC 4056M STC 4057 or equivalent. Lecture/discussion of new concepts and practice with related laboratory curriculum material and microcomputer simulations.

M STC 4046. Chemistry curriculum and methods laboratory (3)
Faculty. Individualized work with secondary chemistry curricula, stressing laboratory activity.

## M STC 4047. Physical science curriculum and methods laboratory (3)

Faculty. Discussion of secondary school curricula, stressing laboratory activity.

M STC 4140. Laboratory methods and experiences for elementary school teachers (1) Professor Howes. Corequisite: M STC 4040. Demonstration of teaching science from constructivist perspectives. Focus on teachers and children learning science through inquiry.

## M STC 5046. A dvanced chem-

istry methods and curriculum laboratory (3)
Faculty. Permission required. Pre requisite: MSTC 4046 or equivalent. Individual ized work with advanced topics from secondary chemistry curricula, stressing laboratory activity.

See also: listings under Program for Preservice and Teacher Education.

## Content Courses

M STC 4043. Science in the environment (2-3)
Professor H owes. Exploration of environmental science from an earth physiology perspective. Focus on connections between contemporary environmental issues and environmental science concepts. A community study utilizing scientific inquiry procedures and applying pertinent environ-
mental science concepts will be conducted.

M STC 4051. Modern concepts in protozoan biology (2-3)
Professor Anderson. The physiological ecology and life history of freeliving and parasitic protozoa.

M STC 4052-4053. Plant biology - M STC 4052. Plant biology (2-3)
Professor Anderson. Introduction to plant physiological ecology with an emphasis on global systems. Laboratory sessions to be announced.

- M STC 4053. Plant biology II (2-3)
Professor Anderson. Prerequisite
MSTC 4052 or equivalent.
Major organizing principles and experimental evidence in plant physiological ecology including laboratory investigations suitable for secondary school and college curricula.


## M STC 4054. Human anatomy and physiology (3)

Professor De M eersman. Prerequisite: a basic biology course. A survey of major organ systems and their physiology. Suitable for a wide variety of professionals in physical education, nursing, health, nutrition, and science.

M STC 4056-M STC 4057. Earth science

- M STC 4056. Earth science I: space and sky (3) Study of models of our planet, earth in space, and weather and climate.
- M STC 4057. Earth science II: materials and processes (3) Study of earth materials and processes shaping the surface, interior, and geologic history of the earth.

M STC4059. Concepts in chemistry I (2-3)
Faculty. Prerequisite: one year of college chemistry. The growth of, and change in, the maj or concepts of the science of chemistry are explored, from the Greek philosophers to the al chemists to those of modern chemistry. Concepts explored: chemical composition and the elements; chemical change, the acids, activity; the nature of matter; the structure of the atom and bonding.

Mathematics, Science, and Technology

M STC 4060. Concepts in chemistry II (2-3)
Faculty. Prerequisite: M STC 4059 or instructor permission. The historical development of selected chemical concepts are examined with respect to the arguments devel oped in their support, with the intent that current meanings will be elucidated in the process.

M STC 4075. Concepts in physics I (3)
Dr. Steiner. Exploration of physics themes of molecules and molecular kinetic theory, heat, mechanics, waves, electricity and magnetism, modern physics. Of particular interest to introductory physics, physical science and general science teachers.

M STC 4076. Concepts in physics II (3)
Dr. Steiner. Exploration of electricity, magnetism, light, optics, quantum mechanics, and selected topics in atomic, nuclear, elementary particle physics and astrophysics.

M STC 4151. Modern principles of evolution (2-3)
Dr. N ehm. Interdisciplinary study of scientific theories about origin and evolution of life on earth.
Includes demonstration and laboratory experiments.

## M STC 4152. Modern concepts

 in genetics (2-3)Dr. Fernández. A survey of modern principles of genetics, including molecular genetics, behavioral genetics, and relationship to $M$ endelian genetics.

M STC 4153. Invertebrate biology (2-3)
Dr. Nehm. A survey of major invertegrate groups, including phylogeny, morphology, and ecology, with examples suitable for biological education.

M STC 4558. Seminar in environmental sciences for secondary and college teaching (3)
Faculty. Exploration of environmental problems and issues as they relate to science content instruction in the classroom and labora tory. The global systems approach will be stressed.

M STC 5052-M STC 5053. Biochemistry and cell biology (2-4) Professor Anderson. Prerequisite: organic chemistry. Autumn: M odern advances in biochemistry including molecular genetics and metabolic pathways. Spring: Spe cial ized topics in biochemistry and cell biology. Additional lectures on advanced topics for 4th point.

## M STC 5055. Electron

microscopy (2-3)
Professor Anderson. Enrollment limited. An introduction to theory and practice in scanning and transmission electron microscopy.

M STC 5056. General oceanography (3)
Faculty. Prerequisite: M STC 4056M STC 4057 or equival ent. Fundamentals of physical and geological oceanography. Special attention to aspects of oceanography rel ated to earth science in schools.

M STC 5057. Coastal oceanography (3)
Faculty. Permission required. Pre requisite: M STC 4056-M STC
4057 or equival ent. Structure and change in coastlines and continental shelves, shelf resources, waves and currents, and environmental implications.

M STC 5058. Advanced topics in earth and environmental sciences (3)
Faculty. Permission required. Pre requisite: MSTC 4056, M STC 4057, M STC 4558, or equivalent. N ew concepts in geol ogy, oceanography, and environmental sciences explored in lecture and laboratory setting. Occasional field trips.

M STC 5152. Biochemistry and cell biology laboratory (1-3) Professor Anderson. Permission required. Recommended: MSTC 5052 or M STC 5053. Laboratory techniques used in biochemical cellular biology, emphasizing experiments that can be adapted for secondary school biology courses.

M STC 5552. Protozoan biology seminar (2-3)
Professor Anderson. Prerequisite: M STC 4051. Investigations of broad contemporary issues in protozoan biology, including cellular physiology, molecular biology, physiological ecology, nutrition, and behavior.

## Program for Pre-service Science Teacher Education

Program Advisors: Staff
M STC 4000. Science in secondary school (3)
Professor Sheppard. Foundations of science education. Planning, assessment, and management of instruction. Required of pre-service science students.

M STC 4363. Introduction to science education practice (2)
Faculty. Corequisite: M STC 4000. Directed field experiences and seminars explore school environments and teaching strategies.

M STC 4761. Student teaching in science (6)
Faculty. Permission required. Pre requisites: M STC 4000 and MSTC 4363. Students do supervised teaching in metropolitan area schools.

M STC 5265. Guided supervision of student teaching in science (2)
Faculty. Permission required.
Open only to doctoral students. Guided field experience in supervising student teachers.

## Independent, Advanced and Dissertation Study

M STC 4902. Guided study in science education (1 or more) Faculty. Permission required from the instructor with whom the student wishes to work. Independent study in selected areas. Use of professional laboratory facilities.

## M STC 5000. Neurocognitive

 models of information processing (2-3)Professor Anderson. Permission required. An analysis of emergent theory in neuroscientific bases of cognition with applications to science education.

M STC 5044. Selected topics and issues in science education (3)
Faculty. Permission required. A focus on special issues in science education (curriculum, instruction, assessment, research, or content) which changes from one semester to another, highlighted by current research and interest.

M STC 6401. Internship in science education (1-6)
Permission required. Supervised intern service in a variety of field settings including classroom teaching at various levels, supervision, curriculum development, and in-service education.

## M STC 6502. Research seminar

 in science education (0-3) Professor Sheppard. Research oriented seminars deal ing with a variety of issues and leading to preparation for the doctoral certification examination. Required for doctoral students. After initial registration for credit, doctoral students who wish to register in subsequent semesters may do so for 0 credits.M STC 6902. Research and independent study in science education (1 or more)
Permission required. Guided independent study leading to the preparation of a major project or paper. M ay be taken repeatedly by doctoral candidates engaged in research.

M STC 7501. D issertation seminar in science education (0-3)
Devel opment of doctoral disserta tion proposal s and presentation of proposals for departmental review.

## M STC 8901. Dissertation

 advisement in science education (0)Individual advisement on doctoral dissertations. Fee: to equal 3 points at current tuition rate for each term. For requirements, see section in catal og on Continuous Registration for Ed.D./Ph.D. degrees.

M STC 9901. Research and independent study in science education (1 or more)
Permission required. Open to postdoctoral students accepted for study at Teachers College.

Chair: Professor Charles C.
H arrington
Location: 213 M ain H all
Tel ephone N umber:
212-678-3258
Tel ephone N umber for
Admission Inquiries:
212-678-3710
Fax: 212-678-3937
W eb Address:
http://www.tc. col umbia.edu/
~academic O\& L dept/

## Programs:

## Adult Learning and Leadership

 (ALL):Adult Education Guided Intensive Study (AEGIS)
Adult Education and Organizational Learning
H ealthcare H uman Resources

## Education Leadership:

Education Leadership (including Private School Leadership)
Inquiry in Education Leadership Practice
Educational Leadership \& Management (a joint degree program with the Columbia Business School)

## Higher Education:

Higher Education
Higher Education Administration
Student Personnel Administration (SPA)

## Nurse Executive

## Social-Organizational Psychology

## Faculty:

## Professors:

Darlyne Bailey
W. W arner B urke

Charles C. H arrington
L. Lee K nefelkamp

H enry M. Levin
Arthur Levine
Victoria J. Marsick
Anna N eumann
Craig E. Richards
Elaine L. Rigolosi
Thomas Sobol

Adjunct Professors:
Stephen D. Brookfield
Paul J. Edelson
K eville C. Frederickson
J oseph N. H ankin Michael Rebell
Ruud van der Veen
Rita R eis W ieczorek

## Associate Professors:

William J. Baldwin
Caryn J. Block
Peter W. Cookson, J r.
K evin Dougherty
Jay P. H eubert
Pearl R ock K ane
Debra A. N oumair
M argaret Terry Orr
Cheri Ostroff
Patricia Raskin
Lyle Yorks

## Research Associate Professor:

M artha Gephart

## Adjunct Associate Professors:

Tara A. Cortes
Philip E. Fey
Harvey K aye

## Assistant Professors:

Gregory M. Anderson
Peter T. Coleman
Elissa L. Perry
Lisa Ann Petrides
D orothy Shipps
J ames D. W estaby

## Lecturers:

J eanne E. Bitterman
Amy S. Taylor

## Adjunct Assistant Professors:

Dallas W. Bauman, III Isora Bosch
Sarah T. Brazaitis
Patrick P. Chang
Allan Church
Christine Coughlin
M ary J ane Eisen
Charles W. Fowler
Virginia G. Gonzal ez
Irving H amer
W endy H eckelman
William Johnson
Michael T. K oski
Arthur Langer

Georgenne G. LaskoW eisenfeld
Barbara M acaulay
Gibran M ajdal any
Susan M eyer
Lucienne Muller
Christine Persico
Julie Ratner
Vincent Rudan
Sandra V. Sandy
Richard E. Segal I
Franceska Blake Smith
Barbara V. Strobert
Ross Tartell
Amy Titus
Elizabeth H aggerty Tucker
M arie P. Volpe
J anine W acl awski
For information about faculty
and their schol arly and research
interests, please refer to the
"Faculty" section of the Catalog.

## Departmental Mission:

The mission of the Department of Organization and Leadership is to educate, train, and serve current and future leaders.
They include: administrators, policy makers, researchers, psychologists, and educators from around the world. Our students are, or aspire to be, in the fields of public and private education, higher education, adult education, health administration, organization behavior, and organization development and change. W e educate, train, and serve:
(1) leaders, managers, and administrators for all types of organizations, with an emphasis on educational institutions and health organizations in both the private and public sectors,
(2) those who help these lead-
ers, managers, and administra-
tors, and
(3) those who conduct research pertinent to organizational dynamics and learning, who consult to organizations and institutions, and who teach leadership, administration, organizational behavior, learning, and change.

To accomplish this mission the Department provides programs in adult learning, education leadership, nurse executive, higher education, and socialorganizational psychology.

## D epartmental Core <br> Requirements:

The D epartment requires that all students (except SPA-MA students), regardless of degree or program, complete an overview in a research methods course. Organizational Psychology majors are strongly advised to take ORLJ 4009, which emphasizes experimental and quasi-experimental research designs. Other majors are strongly advised to take ORL 5521, which emphasizes applied research designs.

## ORL 4009. U nderstanding

## behavioral research (3)

Professor Perry. O verview of alternative methods of behavioral research and their relative strengths and limitations. Application of methodological application of principles in order to read and to evaluate social science research and to learn how to conduct research.

## ORL 5000. Methods of inquiry:

 Ethnography and participant observation (3)Professor H arrington. The methods of the behavioral and social sciences as they relate to ethnography and participant observation. Emphasis on the role of theory, characteristics and relative efficiencies of various research techniques, and the importance of integrated research design.

## ORL 5002. Ethnography and

 participant observation: Comparative and qualitative analysis (3)Professor H arrington. Prerequisite: ORL 5000. Issues of comparative and quantitative anal yses of data generated by ethnographic/participant observation inquiries.

## ORL 5521. Introduction to

 research methods in education (3)Professors K nefelkamp, N eumann,
Richards, and Shipps. This course meets a departmental requirement for an introductory course on understanding research across a
wide spectrum of educational settings. Basic concepts of research methods and theories of research are introduced so that students can comprehend and critique education research and evaluation. M ethods discussed include both qual itative and quantitative approaches to research, such as surveys, case studies, ethnography, participant observations, interviews, and oral histories.

## ORL 6500. Qualitative research

 methods in organizations: D esign and data collection (3) Professors Orr and Yorks. An introduction to qualitative research methods-conceptual ization and data collection procedures and design. Students learn various qual itative data collection techniques and conduct a pilot study.ORL 6501. Qualitative research methods in organizations: $\mathbf{D}$ ata analysis and reporting (3)
Professor Marsick. Prerequisite: ORL 6500. Strategies and procedures for qualitative data analysis, within and across case studies; individual and group interview analyses; data display; and methods of presenting and reporting findings.

## ORL 6518. Methods of case

 study and analysis (3)Professors Orr and Sobol. Techniques and methods of preparing and analyzing case studies of organizations and institutions.

The research course require ments are summarized in the grid adjacent.

All Ed.D. students are required to complete an introductory statistics course and a twocourse sequence in research design (data collection and anal ysis) in a methodology that is rel evant to their dissertation. Students are to work with their advisor and dissertation sponsor to select one of seven possible methodological designs-experimental and quasi-experimental, survey research, applied qual itative research, ethnography, eval uation, action research, and historical research.

The grid on the following page lists the seven research designs, and course options for courses in methodological design and data anal ysis that are appropriate for each type of methodology.

## Adult Learning and Leadership

(Code: TDA - M.A., Ed.M., and Ed.D.)
Adult Education and
Organizational Learning H ealthcare H uman Resources
(Code: TDS-Ed.D. AEGIS program)
Adult Education Guided Intensive Study (AEGIS)

Program Coordinator: Professor Victoria M arsick
For Admission inquiries:
212-678-3710
Program Office: 212-678-3760

## D egrees Offered:

M aster of Arts (M.A.)
M aster of Education (Ed.M.)
Doctor of Education (Ed.D.)

## Special Application <br> Requirements/Information:

A pplicants for these degrees,
with a concentration in A dult Education and Organizational Learning: need to submit an academic writing sample if they are applying for the Ed.M . or Ed.D. degree in this concentration; are encouraged to arrange an interview, which in some cases, may also be required; and do not need to submit MAT or GRE scores. The academic writing sample could be a published or unpublished paper that demonstrates clear, logical, conceptual, and analytical thinking, as well as the proper use of citations and references. Papers written for graduate courses are good academic writing samples; memos or reports, curriculum materi-
als, and other practical writing are not. If applicants wish, they can meet this requirement by writing a paper that follows the guideline laid out in the box labeled "A cademic W riting Sample in A dult Learning and Leadership with a Concentration in Adult Education and Organizational Learning".

A pplicants for these degrees, with a concentration in H ealthcare H uman R esources, must meet the same require ments listed under the Program for N urse Executives.

The Doctor of Education, AEGIS track is designed for experienced, self-directed professi onals capable of completing a rigorous program emphasizing guided independent study. Students must complete 40 transferable credits from previous successful graduate study prior to beginning the program. The applicant's per-

General Research Requirements for the Department of Organization and Leadership

| Requirements | D egree program | Course Options | Requirement rationale |
| :---: | :---: | :---: | :---: |
| Overview research methods course | MA, Ed.M., ED.D. (Except SPA MA students) | ORL 5521 Research methods in education (for students with applied research interests) or ORL 4009 U nderstanding behavioral research (for students with a psychological orientation) | This course is to give students an overview of various modes of research and provide them with basic research literacy for reading professional journals and research reports |
| Introductory statistics course | ED.D. | H UDM 4120-B asic concepts in statistics | This course is to give students a basic understanding of statistics and a capacity to read and interpret statistical research findings |
| M ethodological research design (design and data collection strategies) | ED.D. | Students are to pick one research design course based on the methodology that is appropriate for their dissertation topic (among seven options). | This course is to train students in research conceptual ization, design and related data collection strategies for one mode of research. Students are to select from among seven research modes. |
| M ethodological data analysis | ED.D. | Students are to take one data anal ysis course that is appropriate for their research design and data collection. | This course is to support students in subsequent data collection, data analysis and reporting. It is a follow-up course to the research design and data collection course. Students cannot take this course without completing appropriate course requirements. |

sonal statement must document experience in leading, designing, or teaching in programs that serve adult learning in a variety of settings: institutions of education, corporations, healthcare, non-profit and public organizations, or religious and community education initiatives. The personal statement should al so identify career/life goals and describe why a degree in this field is a good fit with these goals.

Other requirements for admission include a professional
resume indicating several years of experience in program development or administration of adult education, counseling, staff development, or training. In addition a proof of access to a uni versity library, a sample of academic writing (preferably from work in an academic program), and an application essay (see box on next page) are also required. The application essay should not exceed ten double spaced pages. If the application materials are acceptable, applicants will be invited to campus for an interview. They will al so
be asked to complete a second on-site writing assignment at that time.

For the A EGIS track, early admission decisions are made in December of the year preceding the beginning of the program. A pplicants who want to be considered for an early admission decision should make sure that their materials are submitted by October 1 of the year preceding the beginning of the program and will be interviewed in N ovember. A pplicants submitting materi-

| Recommended Doctoral Research Design, Data Collection and Analysis Courses Department of Organization and Leadership |  |  |
| :---: | :---: | :---: |
| Methodological Design | D esign and Data Collection | D ata A nalysis |
| Experimental and Quasiexperimental Research Design | ORLJ 5040 Research M ethods in Social Psychology | Advanced Statistics Courses: H UDM 5122 Applied Regression H UDM 5123 Experimental Design HUDM 5124 M ultidimensional Scaling and Clustering <br> HUDM 6122 Multivariate Analysis |
| Survey Research D esign | HUDF 5020 M ethods of Social Research: Survey M ethods HUDM 5552 M easurement of attitudes <br> HUDM 5553 Questionnaire construction | H U DF 5029 (Sociological Research M ethods) <br> HUDM 5122 Applied Regression HUDM 5124 Multidimensional Scaling and Clustering <br> HUDM 6122 Multivariate A nal ysis H U DF 6021 Social research methods: reporting |
| Applied Qualitative Research D esign (including case study) | ORL 6500 Qual itative Research M ethods on Organizations: Design and Data Collection C\&T 5502 (1) \& (2) Introduction to qual itative research in curriculum and teaching | ORL6501 Qual itative Research M ethods on Organizations: Data Analysis and Reporting |
| Ethnography | ORL 5000 M ethods of Inquiry: Ethnography and participant observation | ITSF 5001 Ethnography and participant observation: Structural and Interpretive anal ysis <br> ORL 5002 Ethnography and participant observation: comparative and qual itative analysis |
| Evaluation | H UDM 5055 Evaluation of Institutions, programs and curricula H BSS 6100 M easurement and evaluation in heal th education H UDF 5021 M ethods of social research: evaluation methods ITSF 4092 Qualitative research and evaluation in international education | HUDM 5056 (continuation) |
| Historical Research | A\&H F 6041 historical method |  |
| Action Research | ORLA 5530 - Action Research | (to be sel ected based upon qualitative or quantitative focus) |

als by J anuary 2 nd of that year, will be interviewed in February. The admission deadline is January 2nd. Final admissions decisions are normally made by $M$ arch of the year in which the program begins.

## Program D escriptions:

The intellectual framework in the programs of A dult Learning and Leadership (ALL) examines the relationship of adult learning to organizational, management, and leadership issues that are rel evant for both concentrations. The framework prepares individuals as leaders, managers, and facilitators of learning in relationship to lifel ong learning, continuing education, and learning from experience at work. The curriculum is designed around levels of learning, development, and change for individuals, groups, and organizations as a whole. W ays in which individual learning can be supported, nurtured, shared, and utilized by larger social units in today's knowledge society is also a focus.

Lifelong learning for adults is an increasingly important educational specialization in the 21st century. The massive economic, political, social and psychological changes that are transforming the nature and structure of virtually all institutions in society have rendered obsol ete the notion that people can be adequatel y educated, once and for all, in their youth. In addition, the challenges faced by adults today call for changes in our social, economic, and political systems. Decision makers must recognize the limitations of programming solely within institutions, and help to create bridges to strengthen organizational and national capacity.

The concentration in adult education and organizational learning appeal s to professionals who design, develop, and

## AEGIS Doctoral Admissions Application Essay

For centuries W estern philosophical thought has considered the uniqueness of human beings, and how they differ from other species that inhabit the earth and the special responsibility this uniqueness entails.
Thomas Aquinas, building on the work of A ristotle, tells us "that the ultimate intrinsic end of man is the perfection of his highest and specific faculty, namely his intellect." J ohn D onne, when confronted with his own imminent death, tells us that "no man is an island entire of itself; every man is a piece of the continent, a part of the main . . . any man's death diminishes me, because I am involved in mankind; and thereforenever send to know for whom the bell tolls; it tolls for thee."

In your view what assumptions underlie each of these statements? In what ways are these statements contradictory or complimentary? W hat do these statements tell us about individual and societal responsibility for leadership and learning? W hat dilemmas, if any, do they suggest for the role of education in society? H ow should adult educators address these implications? W hat assumptions are you making about your role as an adult educator in your remarks?
evaluate programs that meet the learning needs of adults in both face-to-face and on-line formats. They include educators of adults who learn in the following settings:

- organizations in the profit and not-for-profit or public sectors
- religious and communitybased organizations
- basic education classes (literacy, General Education Diploma)
- returning adult students with specialized needs in postsecondary education
- continuing professional education

A specialized concentration in H eal thcare H uman Resources would appeal, to professionals in nursing, social work, nutrition, extended nursing care, law, and medicine who are seeking leadership and learning positions. The healthcare human resource educator or manager is a teacher, leader, facilitator, collaborator, creator, and reform artist who must fit professional responsibilities with societal changes, governmental regulations, consumer needs, and heal thcare delivery. H ealthcare delivery must bequal itatively and economically sound.

H ealthcare, from the nonprofit or for-profit sectors, is one of the largest if not the largest consumer of the gross national product in this country. There are unlimited avenues in healthcare del ivery that employ various people-professional and non-professional as well as those techni cally trained. H uman resource education and management of these staff members becomethe responsibility of professionals who have educa tion in some area of heal thcare practice due to the unique structure and needs of healthcare delivery. They must be identified with as well as understand heal thcare; they must be able to lead and educate.

The purpose of the concentration in H eal thcare H uman Resources is premised on the notion that professional sin the areas of healthcare delivery must al so be educated in the areas of A dult Learning and Leadership and the field of human resources in healthcare organizations. This leader must be astute across professional domains; the leader must (a) understand organizational dynamics, (b) be an effective change agent, (c) be a leader and educator, and (d) bea manager of organizational change. These responsibilities require a person to be knowl-
edgeable in their professional domain in heal thcare as well as their practice domain with human resources.

The concentrations in Adult Education and Organizational Learning and H eathcare H uman Resources are currently under review by the State of N ew York Education Department. They are expected to go into effect in September 2001. These emphases are combinations of the fully accredited program in Adult and Continuing Education and the fully accredited Program for $N$ urse Executive. Both of these programs are currently offered in the Department of Organization and Leadership.

## M aster of Arts

For the concentration in adult education and organizational learning, the M.A. program is
most appropriate for educators who are involved in the design, management and delivery of learning.

## Master of Educ ation and Doctor of Education (ALL concentrations)

The Ed.M. and Ed.D. options for the concentration in adult education and organizational learning are appropriate for professionals who are involved in policy development, strategy, change management, and systems-level learning. To summarize, the program prepares educators who work with the following groups:

1. Leaders who shape adult education policy and program development, as well a those who act as trainers and coaches to these leaders;
2. Designers, planners, managers, and developers who are innovating with new delivery models; and
3. Researchers and evaluators of cutting-edge adult education practices.

## Doctor of Education (AEGIS)

AEGIS is a highly selective, fast-track cohort program leading to the Ed.D. in Adult Learning and Leadership for mid-career professionals who work full time, and who choose to pursue a doctorate in a concentrated format. The program emphasizes leadership for adult education and organizational

|  | M.A. | Ed.M. | Ed.D. |
| :--- | :---: | ---: | :---: |
| Required Core <br> Courses <br> Required <br> Research | 21 points | 27 points | 30 points |
| Sequence <br> Required <br> Contextual | 3 points | 6 points | 18 points |
| Concentration <br> Courses | 15 points | 18 points | 18 points |
| Elective Course | 6 points | 9 points | 24 points |
| TOTAL | $\mathbf{4 5}$ points | $\mathbf{6 0}$ points | $\mathbf{9 0}$ points |

learning. Scholar practitioners are hel ped to examine and critique theory and professional experience.

## D egree Requirements:

The M.A., Ed.M., and Ed.D. programs are structured around core courses, a core research sequence, concentration courses, and electives. The following matrix shows the area for each degree.

The core courses are designed to develop professional capabilities for students in A dult Learning and Leadership in either of the two contextual specializations (Adult and Organizational Learning or H ealthcare H uman Resource Devel opment). These core courses prepare students with respect to: leadership, strategy and management, adult learning, human resource development, group dynamics and organizational behavior. The required concentration is then tailored to the contextual needs of students in either of the two specializations.

Required core courses can be selected from courses identified in the following section in the area of: leadership, strategy and management, adult learning, human resource devel opment, group dynamics, organizational behavior, and technology for learning or management. At least one course is to be taken in each of these seven areas no matter what the degree level. M ost courses are offered by the program; several are offered in the Department; and in the case of technology, students usual ly take courses in other departments at the College.

## Required Core Courses (21-30 points)

Leadership (minimum of 3 points):

- ORL 4054 Leadership and M anagement in H eal thcare Organizations or
- ORL 5018 U nderstanding Authority and Exercising Leadership
- ORLJ 5005 Leadership and Supervision Strategy and $M$ anagement (minimum of 3 points):
- ORLD 5054 Strategy Development as a Learning Process in Organizations or courses avail able el sewhere in the College and Columbia University.

A dult Learning (minimum of
3 points)

- ORLD 4053 Facilitating Adult Learning or
- ORLD 4051 How Adults Learn

H uman Resource D evel opment (minimum of 3 points)

- ORL 4011 Personnel Management in H ealthcare Orga nizations or
- ORLD 5055 Staff Development and Training, or
- ORLD 5062 Human Resource Devel opment in Organizations or
- ORLJ 5003 Human Resource $M$ anagement
$G$ roup $D$ ynamics (minimum of
3 points):
- ORLA 5017 Groups and Interpersonal Behavior or
- ORLJ 5017 Small Group Intervention: Theory and M ethod

Organizational B ehavior
(minimum of 3 points)

- ORLA 4010 Organizational Behavior and Change or
- ORLJ 4005 Organizational Psychology or
- ORLJ 5014 Organizational Dynamics and Theory

Technology (minimum of 3 points) N ew courses are being developed in Technol ogy-Supported Learning and in Technology and $M$ anagement/I nformation Systems. Technol ogy-rel ated courses are also avail able elsewhere in the College. For example:

- MSTU 4022 Telecommunications, Distance learning, and Collaborative Interchange
- MSTU 4030 Computer Applications in Education
- MSTU 4031 Programming I
- MSTU 4035 The Computer as an Instructional Aid
- MSTU 4083 Instructional Design of Educational Technology
- ORLN 5013 Informatics in N ursing


## Required Core Research

Sequence ( 3 to 18 points)
M .A. (minimum 3 points)

- ORL 5521 Introduction to Research M ethods in Education, or
- OR LJ 4009 U nderstanding Behavioral R esearch

Ed.M. (minimum 6 points)
In addition to one of the above listed courses, M.Ed. students must take a statistics course from those listed below.

Ed.D. (minimum 18 points) At the Ed.D. leve, students must include a research design course, a data collection course (either qual itative or quantitative), a data anal ysis course (either qual itative or quantitative), and a dissertation seminar. These courses include but are not limited to the following courses.

- HUDM 4120 Basic Concepts in Statistics
- HUDM 4122 Probability and Statistical Inference
- HUDM 5122 Applied Regression Anal ysis
- HUDM 5123 Experimental Design
- HUDM 5124 Multidimensional Scaling and Clustering
- HUDM 5125 Psychological Scaling
- HUDM 6026 Statistical Treatment of M ass D ata
- HUDM 6122 Multivariate A nal ysis I
- HUDM 6123 Multivariate A nal ysis II
- ITSF 4092 Qualitative R esearch and Evaluation in International Education
- ORL 5000 M ethods of Inquiry: Ethnography and Participant Observation
- ORL 5001 Ethnography and Participant Observation: Structural and Interpretive A nal ysis
- ORL 6500 Qualitative R esearch in Organizations: Research Design
- ORL 6500 Qualitative R esearch in Organizations: Data A nalysis


## Required Contextual Concentration Courses ( 15 to 18 points)

Concentration courses differ by degree area and within each of the two areas of specialization, that is, Adult Education and Organizational Learning or HealthcareH uman Resources. A reas within which concentration courses are offered are identified in the following sections.

## Adult Education and Organizational Learning: Contextual Concentration Courses

A dult D evelopment Theory and A pplications

- ORLD 4051 How Adults Learn

A dult Learning Theory and A pplications

- ORLD 4050 Introduction to Adult Education
- ORLD 5057 Adult Learning and Education Theory and Practice

Systems L earning T heory
and A pplications

- ORLD 5819 W orkplace Learning Institute: Towards a Learning Organization-The Social Dimensions of LargeScale Change
- ORLD 5061 The Learning Organization
- ORLD 5065 The Learning Society Program Development and $M$ anagement
- ORLD 4052 Program D evel opment: A ssessing Learning N eeds and Evaluating Outcomes
- ORLD 5053 Developing and M anaging A dult Learning Programs Conflict Resolution
- ORLJ 5304 Basic Practicum in Conflict Resolution and M ediation Skills
- ORLJ 6040 Fundamentals of Cooperation, Conflict ResoIution and Mediation in Different Institutional Contexts
- ORLJ 6350 Advanced Practicum in Conflict Resolution and Mediation, Section I
- ORLJ 6350 Advanced Practicum in Conflict ResoIution and Mediation, Section II: Designing Conflict M anagement Systems


## Healthcare Human Resources: Contextual Concentration Courses

H ealthcareL aw

- ORL 4014 Legal Issues in H eal thcare Organizations H ealthcare Policy and A nalysis
- ORLN 6014 M anaging the Socially Responsible Organization
- ORLN 6522 Policy Forma tion and Governance in N ursing Ethics
- ORL 5551 Ethics for $H$ ealthcare Professionals M arketing
- ORLN 6514 Marketing N ursing Programs and Services Accounting and Finance
- ORLN 4013 Fiscal M anagement of the $N$ ursing Organization Adult Learning
- ORLN 5530 Seminar: Clinical Teaching and Evaluation
- ORLN 6511 Innovations in $N$ ursing M anagement


## Elective Courses

Electives include, but may not belimited to, courses in conflict resolution, policy and eval uation, technology for learning, and management/information systems. These are tailored to the
student's career goals, and can be taken in the Department or el sewhere in Teachers College or Columbia U niversity. Electives can include transfer courses.

Students are required to take at least two courses in any degree program outside of our immediate program area to satisfy the breadth requirement of Teachers College, Columbia U niversity.

Students in the M.A. and M.Ed. programs are required to complete either an integrative project, or pass a comprehensive examination. Students in the Ed.D. program are required to pass a certification examination and to write and successfully defend a dissertation.

## Doctor of Education, AEGIS track

Course work is completed over a two-year period. Participants attend a concentrated threeweek session at Teachers College in each of three summers. D uring the academic year, they meet for Friday evening and Saturday seminars four times each semester for a total of four semesters. D ue to State requirements attendance in all dass sessi ons is mandatory. Missing a dass is an automatic stop out of the cohort program until the next cyde. Courses are not open to students from other programs. Special tuition: $\$ 8,000$ per semes ter. Tuition is subject to change without notice.

A EGIS students earn 50 course points at Teachers College in a structured program that provides required courses in three areas: theory, research, and the study of professional practice in various settings where adults learn. For the final phase of the program, students must pass a certification examination and complete a dissertation.

AEGIS COURSE SCHEDULE
First Year:
Summer (Three week session)

- ORLD 6909, Program Development (3)
- ORLD 6800, Life H istory (2)
- ORLD 6902, Proseminar in Adult Education (3)

A utumn

- ORLD 6908, H ow Adults Learn (3)
- ORLD 6800, Literacy \& Adult Basic Education (1)
- ORLD 6918, Introduction to R esearch (3)

Spring

- ORLD 6904, A dvanced Adult Education Theory (3)
- ORLD 5065, The Learning Society (1)
- ORLD 6803, Qualitative R esearch (3)

Second Year:
Summer (Three week session)

- A\&H F 4061, Introduction to Cultural Studies
- HUDM 5021, Empirical Research (3) W orkshop: Certification Exam Preparation (0)

A utumn

- A\&HF 4084, Social Philosophy (3)
- ORLD 6800, Social Action (1)
- ORLD 6918, Advanced Research (3)
- ORLD 6914, Action Research/A ction Learning/ Collaborative Inquiry (2)

Spring

- ORLD 6908, A dvanced Seminar: Leadership in Adult Education(3)
- OR LD 6800, W orkplace Learning (1)
- ORLD 6918, A dvanced R esearch (3)
- ORLD 6914, Technology \& Learning in Adult Education (2)

Third Year:
Summer

- ORLD 6918, Advanced R esearch (2)
- ORLD 6914, Directed Dissertation Research (2)
- ORLD 6800, Review of Learning Experience (Capstone) (0)

Fall and Spring

- ORLD 7900, Dissertation Seminar
- ORLD 8900, Continuous Dissertation Advisement
$N$ ote: A fter completion of course work in the third summer, students must enroll in ORLD 7900 Dissertation Seminar until their dissertation proposal is defended and filed with the Office of Doctoral Studies. ORLD 7900 is a seminar that meets on AEGIS weekends for additional guidance in their research. Following the filing of the dissertation proposal, candidates must enroll in ORLD8900, Continuous Dissertation Advisement, up to and including the semester in which the oral defense is held, and major revisions are made on the document, as recommended by the Dissertation Committee. ORLD 8900 does not involve class meetings. Alternatively, students can continueto enroll in ORLD7900 as it fits their needs for continuing progress toward completion of the dissertation.


## Courses:

ORLD 4050. Introduction to adult and continuing education (3)

Faculty. An introduction to the professional field of adult and continuing education: fields of practice (higher education, workplace, management training, social action, literacy and the like, and their evolution, and new challenges; schools of thought [pragmatism, radicalism and human-
ism]); their transformation and their relevance; clarification of concepts; and discussion of emerging issues and challenges.

## ORLD 4051. How adults learn

 (3)Professor K nefelkamp, Drs. Gonzalez and Langer. Role and perspective changes in adulthood, concepts of maturity, learning theories, personality development, cognitive learning and thinking, creativity, interests and attitudes, motivation, self-concept, and achieving styles. Implications for the education of adults in a wide variety of workplace, community, and educational settings.

ORLD 4052. Program development: A ssessing learning needs and evaluating outcomes (3)
Dr. Fey. In-depth consideration of issues, strategies and tools for ensuring that the right needs are identified within organizations, that resulting learning programs address learning needs, and that program development provides adequately for evaluation of learning on multiple levels. Course addresses both theory and practical examples of implementation.

## ORLD 4053. Facilitating adult

 learning (3)Dr. Bitterman and Professor Marsick. In-depth consideration of issues, strategies and methods for facilitating adult learning. Theory is considered in relationship to practice. Methods are identified that are suited to adult learning in different settings, and to the role played by groups in individual to team learning. No prerequisites required, but learning is enhanced when taken following ORLD 4051.

ORLD 4054. Adult literacy: Critiquing theory and practice (3) Dr. Bitterman. Permission required. Explores the complex issues surrounding adult literacy from the educator's perspective. Through a critical reading of representative literature and an infield project, insight into contextual approaches to literacy and the myths surrounding illiteracy may be gleaned.

ORLD 4500. Special topics in higher and adult education (1-3)
Faculty. Periodic explorations of special topics and issues in fields of higher education administration, student personnel administration, adult and workplace education, and college teaching and academic leadership.

## ORLD 4800. Workshop in higher and adult education

 (0-3)Faculty. Special topics or events rel ated to the administration of programs of higher or adult educa tion. Topics change each semester. Open to degree and nondegree students for credit or noncredit.

## ORLD 4815. D eveloping critical thinkers (1)

Dr. Brookfield. This workshop will explore answers to questions concerning facilitating adult learning Presentations from the workshop leader will be interspersed with small group exercises focusing on different approaches to hel ping adults learn. Participants will be encouraged to explore their own experiences as learners and facilitators and to consider how these experiences might help them to reframe their practice

## ORLD 4844. Helping adults learn (3)

Dr. Brookfield. In this course, participants will explore the ways in which adults learn critical thinking and they will experience different techniques to teach critical thinking. Exerci ses to be reviewed will include: Scenario A nalysis, Heroes and Villains, Crisis Decision Simulation and Critical Incidents. The course will mix presentations by the leader with small group exercises.

## ORLD 5053. D eveloping and

 managing adult learning programs (3)Dr. Fey. Organization studied in relation to community structure and social forces. Finance and facilities, personnel, program, and community relations. Major emphasis on case anal ysis.

ORLD5054. Strategy develop ment as a learning process in organizations (3)
Professor Yorks. This course provides a comprehensive view of organizational strategy from a learning perspective Students examine various modeds for facilitating the development of strategic initiatives through learning interventions.

## ORLD 5055. Staff development

 and training (3)Faculty. Introductory course covering the organization, management, and instructional process involved in staff training and development programs in business, industry, unions, heal thcare institutions, government, and other noncollegiate settings. Current developments, innovative practices, and issues.

## ORLD 5056. Adult education social action (3)

Dr. Muller. An historical, sociocultural and psychopolitical approach to adult learning and education. Contexts of adult education for social change in the N orth (social movements, community development) and the South ( N GOs, community education); concepts of conscientiation, social action, praxis, and empowerment are covered as well as new challenges to social change education (globalization, liberation, post-modernism).

ORLD 5057. Adult learning and education: theory and practice (3)

Professor Marsick. A seminar in theory devel opment through a synthesis of the writings of selected philosophers, social scientists, and educators. History and transformation of adult education philosophy and theory; cultural, social and political contexts of theory-building; critical anal ysis of the main schools of thought; discussion of new challenges to adult learning and education theory (social learning, organizational learning).

ORLD 5061. The learning organization (3)
Professor M arsick. This course describes theory and practice in creating learning organizations. In depth attention is given to action science as a framework for organizational learning. Readings and case studies provide insight into learning at individual, group, and
organizational levels. ORLD 5055 or its equival ent is a prerequisite.

## ORLD5062. Human resource development in organizations

 (3)Professor Yorks. A comprehensive view of the field of human resource devel opment. The emphasis is on how HRD relates to a changing workplace and how emerging theories of strategic and performance management rel ate to the learning and development needs of people and organizations. Prerequisite: ORLD5055 or ORLJ 5003 (Organizational Psychology students), or Instructor permission.

ORLD 5065. The learning society (3)
Professor van der Veen. This course introduces students to ways in which people learn through daily participation in society. Students examine how society and social institutions learn in a "learning society," and how educational support for this needs to change. Prerequisite: ORLD 4050.

ORLD 5819. Workplace Learning Institute- Towards a learning organization: The social dimensions of large-scale change (1-3)
Professor M arsick and Dr. M eyer. The W orkplace Learning Institute brings together public and private sector training and human resource practitioners, managers, program directors, faculty and students interested in exploring current issues that define the scope and nature of workplace learning. Themes vary each year.

ORLD 6550-ORLD 6551.
Advanced seminar in higher and adult education (3)
Faculty. Intensive study of a selected topic. Topic varies from term to term and is typically related to an ongoing program or research project. Students may begin either term.

ORLD 7500. Dissertation seminar in higher and adult education (1)
Permission required. Students should have completed most or all course work (including research methods courses) and have passed the certification examination. The course is intended for students

## Doctoral Admissions Application Essays

Please write two essays of no more than 500 words each from among the three possible topics below:

1. Summarize the leadership activities in which you have been involved in recent years and explain how these experiences reflect your vision of and capacity for leadership.
2. Please identify a problem or challenge in a school, school-related organization, or your professional life generally and write an analysis in which you assess the issue(s), describe effective strategies for addressing the issue(s), and make clear the implications for the exercise of effective leadership in the situation.
3. Please describe a problem of educational policy development, policy decision-making, policy content, or policy implementation, and explain how a deeper understanding of policy or the policy process could improve the situation.
who have identified a reasonably narrow area for research and have al ready completed a preliminary literature review. The course will assist the student in design, methods, and other matters of concern in the preparation of an acceptable di ssertation proposal. Directed Research and Independent Study (Students must have an instructorapproved Learning Contract prior to enrolling in any of the following courses.)

ORLD 4900. Research and independent study in higher and adult education (2 or more).

ORLD 5900. Research in higher and adult education (1-4)
Permission required. Conduct research studies (not a part of a doctoral dissertation) under guidance. Focus on a particular institution or type of institution, e.g., college of liberal arts, professional school, community college.

ORLD 6557-6558. Research practices in higher and adult education
Faculty.
ORLD 6900. Research and independent study in higher and adult education (2 or more) Permission required.

ORLD 7900. Directed dissertation proposal seminar (3)
Permission required. All doctoral students eligible for this course must register each semester until a proposal hearing has occurred and a proposal has been approved.

## ORLD 7500. D irected disserta

## tion proposal seminar (1)

Students register for the course the semester a proposal hearing is to be scheduled.

## ORLD 8900. D issertation

advisement in higher and adult education (0)
Individual advisement on doctoral dissertations. Fee: to equal 3 points at current tuition rate for each term. For requirements, see section in catalog on Continuous Registra tion for Ed.D./Ph.D. degrees.

## For Healthcare Human

Resource course descriptions,
see the Program for $N$ urse Executives listing.

Education Leadership
(Code: TA)
Education Leadership (including Private School Leadership)
Inquiry in Education Leadership Practice
Joint D egree Program in Educational Leadership \& $M$ anagement

Program Coordinator: Professor Thomas Sobol
Telephone: (212) 678-3782;
Fax: (212) 678-3682
E-M ail: ts171@columbia.edu
Admission Inquiries: (212) 678-3710
Program Office: (212) 6783726 and (212) 678-3139
W eb Site: http://ww w.tc.
col umbia. edu/academiclo\&
Idept/edadmin/edadminhome.asp
(Certain forms referenced
below maybe downloaded from the W eb site.)

D egrees Offered:
M aster of Arts (M.A.)
M aster of Education (Ed.M.) D octor of Education (Ed.D.) Doctor of Philosophy (Ph.D.)
J oint Degree Program
(Ed.D./M.B.A.)

## Special Application Requirements/Information:

Either the Graduate Record
Examination (GRE) or the Miller A nal ogies Test (MAT) is required of applicants to all degree programs in Education Leadership (M.A., Ed.M., Ed.D, and Ph.D.).

Applicants to the Ed.M. and Ed. D. in Education Leadership with a focus on Public School and School District Leadership should have at least three (3) years of teaching and/or administrative experience in the public schools ( $\mathrm{N}-12$ ).

Applicants to either the M.A. or Ed.M. program in Education Leadership with a concentration in Private School Leadership should have at least three years of teaching experience.

Applicants for the K lingenstein Fellows Program who wish to be considered for acceptance to the master's degree program must submit the K lingenstein Fellows application as well as the Teachers College Application for Admission. Please send the fellowship application to the K lingenstein office by J anuary 15th and the Teachers College application to
the Admissions Office by J anuary 15th.

Only doctoral applications that are complete and have been received by the Admissions Office by January 2nd will be considered. Late applications may be considered for admission the following year. In addition to the requirements outlined in the application instructions, all doctoral applicants must submit: (1) either the GRE General Test or the MAT; (2) two doctoral application essays chosen from the three suggested topics in the box above; and (3) personal statement including an indication of an intention to study on a full-time or part-time basis.

Applicants to the joint M.B.A./Ed.D. program in Educational Leadership and $M$ anagement must be admitted both to Teachers College and to the Columbia U niversity G raduate School of Business. The appropriate applications and supporting credentials must be submitted to each school. The Business School requires all applicants to take the GMAT exam. Applicants may submit the GMAT to Teachers College in lieu of the GRE or MAT test.

Special N ote: Degree applicants are required to verify professional access to a computer. Doctoral students are encouraged to purchase a laptop computer. Completion of the doctoral student certification examination will require rele vant computer competencies.

## Program D escription:

The curriculum in education leadership prepares students for careers as successful scholars and/or practitioners capable of leading and transforming a wide variety of educating organizations.

Graduates of these programs serve in leadership positions as school and school district
administrators, policy analysts and advocates, and scholars of education and education leadership. To prepare themselves to serve effectively, they

- Become thoroughly grounded in the theory and practice of educational leadership
- Devel op a broad and deep understanding of educating institutions in our society
- Understand teaching and learning, and are able to lead and support effective teaching and learning for all kinds of teachers and students
- Understand the principles of organizational culture and behavior, and possess skills needed to provide effective organizational leadership
- U nderstand the nature of policy, political systems, and law, and possess the skills required to shape and influence these systems and their products
- U nderstand contemporary management systems, and are able to employ them effectively
- U nderstand the uses of technology in education and administration, and possess the skills and knowledge to use technology effectively
- U nderstand the nature of social science research, and are able to apply its principles and methods in conducting inquiry and reviewing research
- Are alert to the legal and ethical considerations that influence all aspects of education
- Are committed to the ideals of equity and diversity in educational matters, and possess the skills and knowledge needed to promote these ideals in educational institutions
- Exhibit the courage and refine the critical intelligence needed to question what is and develop what might be.

Students of Education Leadership pursue a common core of studies in Leading Learning, M anagement Systems, Organizational Behavior, Policy A nal ysis and Politics, and Educational Research. This core is enriched by more specialized study in the student's specific area of interest, drawing on the extensive resources of the faculty in Educational Administration, the Department of Organization and Leadership, and Teachers College, and Columbia University.

The Education Leadership faculty offers these routes to the following degrees:

## Public School and School

 District Leadership (Ed.M., Ed.D.)This concentration prepares students for positions of administrative leadership within the public schools, such as principal, director, assistant superintendent, and superintendent of schools. It also provides certification as School Administrator and Supervisor and/or School District Administrator in N ew York State. The program of Inquiry in Educational Leadership Practice offers an alternative route to the Ed.D. in Public School and School District Leadership. Candidates should have at least three years of teaching and/or administrative experience in the public schools.

## Education Leadership (M.A.,

 Ed.M ., Ed.D., Ph.D.)This concentration prepares students for positions of administrative leadership within the public schools and in public and private organizations that work with public schools, such as not-for-profit organizations, government agencies, education-related businesses, and advocacy groups. Completion of the program does not by itself confer certification as School Administrator and Supervisor and/or

School District Administrator in N ew York State. Students who have the required three years teaching experience in grades N-12 and who complete the program of study (including a minimum of 18 credits in administration and supervision and an administrative internship or its equivalent) may meet the N ew Y ork State minimum requirements for the School Administrators and Supervisors (SAS) certificate. Students may make individual application to the New York Office of Teaching.
D egree requirements may be completed in one year of intensive study or on a part-time basis. F or further information on obtaining the SA S, contact the Office of the Registrar (212) 6784050. F or degreeinformation, contact Professor Thomas Sobol (212) 678-3782.

## Education Leadership with a focus in Private School <br> Leadership (M.A., Ed.M.)

The M aster of Arts degree with a concentration in Private School Leadership is supported by the Esther A. and J oseph K lingenstein Center for Independent School Education and the Educational Leadership Program. The special features of this program includes site visits to public and private school s and a connection to an extensive network of cooperating schools. Both the M.A. and Ed.M. programs attract national and international students. The degree focus is designed to enhance the professional careers of deans, division directors, school heads and teacher-l eaders, or to prepare tal ented educators for such positions. Candidates must have at least three years of teaching experience. Contact: Professor Pearl R ock K ane (212) 678-3156.

## Education Leadership with a focus in Education Policy and

 Politics (M.A., Ed.M ., Ed.D., Ph.D.)This concentration prepares students for such positions as policy analyst, policy advocate, and educational researcher.

The $M$ aster of $A$ rts with a specialization in education policy and politics is intended for educators and non-educators considering entry level positions in education policy or management who do not require building-level certification. The policy concentration requires a sequence of courses including history of A merican education, economics of education, politics and policy analysis, educational leadership and change, and educational evaluation methods. Students also complete a policy anal ysis project with a local or national education advocacy organization. Degree requirements may be completed in one year of intensive study or on a parttime basis.

The M aster of Education with a specialization in education policy and politics is intended for educators and non-educators seeking careers in education policy or management in either the private or public sector who do not require buildinglevel certification. The program of study builds on the required M.A. course sequence in education policy and politics with additional work in a policy area and relevant to policy analysis.

## Education Leadership with a focus in Education and <br> M anagement (Ed.D./M BA)

The joint degree program with the Graduate School of Business at Columbia University and the Department of Organization and Leadership at Teachers Collegeleads to the Ed.D. degree and the M.B.A. degree. This joint program emphasizes edu-
cational leadership and management in a wide variety of education-related organizations. The program prepares students to assume major leadership positions in schools, universities, and other educationrel ated organizations by improving educational practice, influencing educational programs, learning to work with complex organizations, and applying management skills to the field of education. The program prepares students to enter educational management in regional, state, or federal governments, research institutions, private foundations, or private sector leadership.

## D egree Requirements:

$N$ ote the basic research requirements for all students in the department.

## M aster of Arts

(Code: TA)
The Education Leadership Program offers M aster of Arts degrees with three areas of focus: public school administration, private school administra tion, and education policy and politics. Individual program requirements are listed below.

## M aster of Arts in Education Leadership with a focus in Public School Administration

The Master of Arts with a focus on public school administration provides a comprehensive introduction to school leadership through the practical and theoretical study of organizational behavior, leading learning, educational policy and politics, and management systems.

Students who have the required three years teaching experience in grades N-12 and who complete the program of study (including a minimum of 18 credits in administration and supervision and an administrative internship or its equivalent) may meet the $N$ ew York State minimum requirements
for the School Administrators and Supervisors (SAS) certificate. As individuals, students may make individual application to the N ew York Office of Teaching. D egree requirements may be completed in one year of intensive study or on a parttime basis. F or further information on obtaining the SA S, contact the Registrar's Office (212) 6784050. F or degree information contact Professor Thomas Sobol (212) 678-3782.

## Master of Arts in Education Leadership with a focus in Private School Leadership

This concentration prepares students for positions of administrative leadership within private schools and in organizations that work with private schools.

The $M$ aster of A rts degree with a concentration in Private School Leadership is supported by the Esther A. and J oseph K lingenstein Center for Independent School Education and the Educational Leadership Program. The degree concentration is designed to enhance the professional careers of department heads, deans, division directors, and school heads or to prepare outstanding educators for such positions.

This program of study includes courses in the administrative leadership of private schools, legal aspects of private school administration, financial management, marketing and research. The special features of the program include site visits to private schools and a connection with a network of cooperating schools. The degree requirements may be completed in one year of intensive study or on a part time basis. Candidates should have at least three years teaching experience. C ontact: Professor Pearl R ock Kane(212) 678-3156.

Master of Arts in Education Leadership with a focus in Educational Policy and Politics (33 credits)

The M aster of Arts with a specialization in education policy and politics is intended for educators and non-educators considering entry level positions in education policy or management who do not require build-ing-level certification. The policy concentration requires a sequence of courses including history of A merican education, economics of education, politics and policy analysis, educational leadership and change and educational evaluation methods. Students al so complete a policy anal ysis project with a local or national education advocacy organization. D egree requirements may be completed in one year of intensive study or on a part-time basis. Contact: Professor D orothy Shipps (212) 678-3850.

## Master of Education

(Code: TA)
Sixty points (at least 30 of which must be earned at Teachers College) are offered in three areas of focus: public school leadership, private school leadership, and education policy and politics. Course requirements for each program are as listed below.

## Master of Education in Education Leadership with a focus in Public School Administration

The M aster of Education Degree with a focus on public school leadership prepares students for positions of administrative leadership such as principal, director, assistant superintendent, and superintendent of schools. The program combines the practical and theoretical study of organizational behavior, leading learning, educational policy and politics, and management science. Attention is al so
devoted to four cross-cutting themes: diversity, technology, leadership, and organizational change. Students who complete the program with a minimum of 24 points in educational administration and an administrative internship or its equivalent meet the requirements for N ew York State certification as a School Administrator and Supervisor (SAS) and School District Administrator (SDA). Candidates should have at least three (3) years of teaching and/or administrative experience in the public schools.

Field-Based Experience Requirements: Candidates for the Ed.M. and Ed. D. in Public School and School District Leadership must meet three field-based experience requirements.

The first is an administrative field study project. Students make in-depth visits to three schools or school districts. In each visit, students interview administrators and other staff and observe school operations on five dimensions of school administration: governance; instruction; organization; accountability; and context and community. Students prepare a written comparison of the three schools or districts on these dimensions, considering the possible effects on student equity and access, educational performance, and organizational effectiveness.

The second field-based requirement is a public school or district internship for a minimum of 200 hours. The internship focuses on instructional leadership and is supervised by an approved internship mentor according to a defined set of competencies and products. Students al so participate in a related internship seminar. As part of the internship, students keep a journal, prepare a written instructional leadership analysis (focusing on curricu-
lum, instruction, supervision, and the learning environment; professional development and human resources; and student personnel services), and complete a field-based project.

The third field field-based requirement is a collaborative policy analysis project. This project a capstone experience in the program, addresses political, community and strategic leadership issues. Students work in teams to investigate a current policy issue as it affects schools and districts. The project documents how policy moves through the educational system, from policy making to policy implementation. Each team studies the design and use of implementation strategies, the anticipated and unanticipated consequences of a policy, and/or the policy impact thus far. The project entails field research, such as formative or summative eval uation or action research, for the school or district under study.

## Master of Education in Education Leadership with a focus in Private School Leadership

The M aster of Education degree with a concentration in Private School Leadership is supported by the Esther A. and J oseph K lingenstein Center for Independent School Education and the Education Leadership Program. The program of study is similar to all requirements for the M aster of Arts in Private School Leadership with the addition of a second project. Up to 30 credits may be transferred from a recognized graduate program and students must satisfy the department's M aster of Education requirements listed above.

The degree concentration is designed to enhance the professional careers of department heads, deans, division directors, and school heads, or to prepare
outstanding educators for such positions. This program of study includes courses in the administrative leadership of private schools, legal aspects of private school administration, financial management and marketing, and research. The special features of the program include site visits to private schools and a connection with a network of cooperating schools. The degree requirements may be completed in two years of intensi ve study or on a parttime basis. Candidates should have at least three years teaching experience. C ontact: Professor Pearl Rock Kane (212) 678 3156.

## Master of Education in Education Leadership with a focus in Education Policy and Politics

( 60 credits)
The M aster of Education with a specialization in education policy and politics is intended for educators and non-educators seeking careers in education policy or management in either the private or public sector who do not require building-level certification. The program of study builds on the required M.A. course sequence in education policy and politics with additional work in a policy area and relevant to policy analysis. Contact: Professor Dorothy Shipps (212) 678-3850.

## Doctoral Degrees

There are several concentrations offered within the doctoral degrees in education leadership: The Ed. D. in Public School and School District Leadership; the Ed. D. in Education Leadership; Inquiry (Ed.D.-code:TAI), a concentrated, cohort program; the Joint Degree Program in Educational Leadership and M anagement (Ed.D./M BAcode:TAA ). These programs require 90 points for completion. A maximum of 40 transfer credits may be accepted.

The Ph.D., a research and theoretical program which may be completed in 75 credits.

## Doctor of Education in Public School and School District Leadership, and Doctor of Education in Education Leadership (Code: TA)

These concentrations are designed with both theory and practice components. They serve professionals in education who intend to be actively involved in educational leadership at the building, district, regional, state or national levels. They al so serve students aspiring to policy research, the professoriate, and employment in a variety of educational institutions and settings. Applicants who are admitted to these programs become eligible for certification on successful completion of 60-70 points of course work, a certification examination, and four clinical projects or other approved field experiences.

Thereafter, candidates complete their remaining course work while preparing a dissertation under the direction of faculty in the program. The doctoral degree in educational leadership builds competence in the areas of policy anal ysis, organizational anal ysis, management systems, and leadership. A concentration in public school Ieadership, private school leadership or education policy and politics is required. (Course requirements build upon M.A. concentrations, see above.)

M ost classes are scheduled between 5:00 p.m.-9:00 p.m. during the Fall and Spring semesters. Additionally, there are two Summer sessions with classes scheduled throughout the day. Course work beyond the M.A. level and research experiences are individually planned by the student and his/her advisor, according to the student's experience, focus,
and needs. On average, fulltime students can complete the degree requirements and graduate in three to five years.

Field-Based Experience Requirements: Candidates for the M.Ed. and Ed. D. in Public School and School District Leadership must meet three field-based experience requi rements.

The first is an administrative field study project. Students make in-depth visits to three schools or school districts. In each visit, students interview administrators and other staff and observe school operations on five dimensions of school administration: governance; instruction; organization; accountability; and context and community. Students prepare a written comparison of the three schools or districts on these dimensions, considering the possible effects on student equity and access, educational performance, and organizational effectiveness.

The second field-based requirement is a public school or district internship for a minimum of 200 hours. The internship focuses on instructional leadership and is supervised by an approved internship mentor according to a defined set of competencies and products. Students al so participate in a related internship seminar. As part of the internship, students keep a journal, prepare a written instructional leadership anal ysis (focusing on curriculum, instruction, supervision, and the learning environment; professional devel opment and human resources; and student personnel services), and complete a field-based project.

The third field field-based requirement is a collaborative policy analysis project. This project a capstone experience in the program, addresses political, community and strategic
leadership issues. Students work in teams to investigate a current policy issue as it affects schools and districts. The project documents how policy moves through the educational system, from policy making to policy implementation. Each team studies the design and use of implementation strategies, the anticipated and unanticipated consequences of a policy, and/or the policy impact thus far. The project entails field research, such as formative or summative eval uation or action research, for the school or district under study.

## Doctor of Education: Inquiry in Education Leadership Practice

 (Ed.D.-code: TAI)The IN QUIRY program offers practicing, certified school administrators an opportunity to complete a rigorous doctoral program while continuing to practice. It prepares committed men and women for lives of leadership and service in educating institutions of all kinds. Its chief objectives are to:

- Strengthen students' ability to lead educating institutions as purposeful, effective, humane organizations.
- Stimulate inquiry into problems encountered in professional practice.
- Broaden and deepen reflection about values, trends, and issues that affect the education enterprise.
- Provide skills and knowledge needed for the effective leadership and management of complex organizations in a sophisticated technological society.
- Create and sustain a learning community committed to continuous learning and mutual support

The curriculum spans the domains of leading learning, management systems, organizational behavior, and policy anal ysis. It al so entails study of the intellectual history of

A merican education, theory and practice of school reform, principles of education law, and research in educational administration (usually conducted in field settings of the student's choice). A formal dissertation focusing on a topic of professional concern is required.

As colleagues in a close-knit cohort, students attend classes over a two-year period, working in teams as well as individually. (Additional time is usually required to complete the dissertation.) Each year consists of five intensive seminar weekends during the fall and spring semesters and four weeks of concentrated campus-based study in July. Although the schedule differs from that of the conventional doctoral program in Education Leadership, the content, degree requirements, and standards of performance remain the same. N o academic credits are awarded for work experience.

Prospective students are encouraged to apply early. Applications and all supporting documents must be recei ved in the Admissions Office by J anuary 2, 2002. C ontact: Professor Thomas Sobol (212) 678-3751.

## Doctor of Education and Master of Business Administration: $A$ J oint Program (Ed.D. /M.B.A.code TAA)- with the Columbia University School of Business

The joint degree program with the Graduate School of Business of Columbia University and the Department of Organization and Leadership at Teachers College leads to the Ed.D. degree and the M.B.A. degree. This joint program emphasizes the area of educational leadership and management in a wide variety of educationrel ated organizations. The program is designed to prepare students to assume major leadership positions in schools, uni-
versities, and other educationrel ated organizations by improving educational practice, influencing educational programs, learning to work with complex organizations, and applying management skills to the field of education. The program will prepare the student to enter educational management in regional, state, or federal governments, research institutions, private foundations, or private sector leadership. C ontact: TheEducational L eadership Office (212) 678-3726 or 678-3139.

## Doctor of Philosophy

(Ph.D.-code:TA)
The Ph.D. in Educational Administration is designed for researchers, aspiring professors, and policy analysts, emphasizing research and intensive specialization in a field of scholarship. In addition to study in educational administration, the program requires preparation in one of the cognate social science faculties of the U niversity, for example, Political Science, Sociology, or Economics. The program is intentionally research focused and theoretical. It does not attempt directly to prepare its holders to excel in the field of practice. Students who are committed to leadership in schools and other educational institutions should apply for admittance to the Ed.D. program. Before making application to the Ph.D. program in Educational Administration, prospective applicants are urged to consult with Professor Charles $H$ arrington, (212) 678-3313.

## Non-Degree Programs

In addition to the degree programs previously described, the Educational Administration Program offers several professional development opportunities to both first-time students and to al umni interested in continuing their graduate education. These are listed below.

## Education and Law

This concentration, offered jointly by Teachers College and Columbia Law School, prepares students for positions that require knowledge and skill in education and law. Formal programs are in devel opment; students interested in ad hoc arrangements should contact Professor Jay H aubert at (212) 678-3775.

## Klingenstein Fellow s Program

Program Director: Pearl R ock $K$ ane

The K lingenstein Fellows Program is a one-year program designed to devel op leadership skills in administration or academic areas. Fellows may elect to enroll in a degree program or to do graduate work as a non-degree student. Through seminars and course work at Teachers College and the other professional and graduate schools of Columbia University, the program seeks to enlarge the perspectives of Fellows and to prepare them to assume increased leadership responsibility. The fellowship includes a living stipend and a generous tuition allowance.

A pplicants for the K lingenstein Fellows Program who wish to be considered for the master's degree must submit the K lingenstein Fellows application as well as the Teachers College Application for Admission. Please send the fellowship application to the K lingenstein office by J anuary 15 and the Teachers College application to the Admissions Office by J anuary 15. C ontact: Professor Pearl Rock Kane (212) 678-3156.

## Klingenstein Summer Institute

An intensive off site residential summer institute is offered for independent elementary, middle or high school teachers with two to five years of teaching experience. The Institute is
designed to increase classroom effectiveness and to prepare teachers who have demonstrated outstanding promise for leadership positions in privateschools. Participation is based on an award that covers all expenses. Participants earn four graduate credits that may be applied toward the M aster of Arts degree. C ontact Professor Pearl Rock Kane (212) 678-3156.

## Klingenstein Visiting Fellows Program

The K lingenstein Visiting Fellows Program is a three and half week program of intensive study and interaction with professional peers for heads of independent schools. School heads are in residence at the College. They participate in seminars on issues confronting independent school leaders and attend colloquia on topics of interest including educational philosophy, diversity, and orga nizational change. School heads al so pursue independent study, investigating problems of particular relevance to their school situations. Fellowship awards are granted annually. Please send completed application packets to the K lingenstein Center by J anuary 15. C ontadt: Professor P earl R ock Kane(212) 678-3156.

## M anagement Systems Summer Institute

The Summer Institute in M anagement Systems meets for two weekends in J une. It is designed to enhance the school administrator's perspective of the business side of the educational enterprise. Each summer takes a new topic. Past topics have included: The Ecology of Financial Planning, Budget Forecasting, School Facility N eeds A ssessment, and the Politics of the Budget Process. Future topics will include: Managing Technology in the Classroom, The Pros and Cons of Private Contracting and School Site Budgeting. The

Institute offers a combination of classroom lectures by leading experts in the field, simulations, case studies, and team work. C ontact: C enter for Educational Outreach \& Innovation at (212) 678-3987.

## Principals W ork Conference

The Education Leadership Program sponsors the Principals W ork Conference through the Center for Educational Outreach, and Innovation. School leaders explore creative administrative problem-solving in terms of community building, curriculum models, school design, school-community assessment and inter-institutional relations in the context of school reform. Participants attend to current research. C ontact: Center for Educational Outreach \& Innovation at (212) 678 3987.

## Superintendents <br> Work Conference

The conference is a week long professional development program held each year during the month of July. Conference participants meet with nationally known educational leaders, public policy makers, and scholars to discuss and analyze major educational and social issues. A ttendance is by nomination and invitation.
C ontact: Professor Thomas Sobol (212) 678-3751.

## Courses:

Before selecting courses, students should consult: (1) The Degree Requirements of the College describing the requirements of each degree; (2) The requirements of the Education Leadership Program as described in the H andbook or "Guide" (see al so, W eb page); and (3) their faculty advisor.

## General and Research

ORL 5521. Introduction to Research Methods in Education (3)

Professors K nefelkamp, N eumann, Richards, and Shipps. This course meets a D epartmental requirement for an introductory course on understanding research across a wide spectrum of educational settings. Basic concepts of research methods and theories of research are introduced so that students can comprehend and critique educa tion research and evaluation. M ethods discussed include both qualitative and quantitative approaches to research, such as surveys, case studies, ethnography, participant observations, interviews, and oral histories.

ORL 6518. Methods of case study and analysis (3)
Professors Orr and Sobol. Techniques and methods of preparing and analyzing case studies of organizations and institutions.

## ORLA 4001. Overview of

administration (3)
Professor Richards. An introduction to educational governance, organization, policy making, administration, and leadership of schools and school systems in the United States. The course combines the study of theory and practice through the use of case studies and critical incidents.

ORLA 4900. Research and independent study in educational administration (1 or more)
Permission required from individual faculty. Special individualized work. W hen registering please use correct section number as listed by Professor below.

Section \#01- Professor TBA
Section \#02- Professor Petrides
Section \#03- Professor Sobol;
Section \#04- Professor K ane;
Section \#05- Professor TBA
$N$ ote: there are no Sections 5
and 6 .
Section \#07- Professor H eubert;
Section \#08— Professor Richards;
Section \#09— Professor Orr;
Section \#10-Adjunct Professors;
Section \#11- Professor Shipps

## ORLA 5051. Program leadership: Cases (2)

Faculty. Permission required. Case studies in a simulated school system.

## ORLA 5830. The K lingenstein

 summer institute (4)Professor K ane. Permission required. Enrollment limited. An intensive residential program that introduces young liberal arts graduates to the complexity and challenge of teaching in independent schools. Topics include curriculum and assessment, understanding school organizations, issues of diversity and philosophy.

ORLA 6211-ORLA 6241. Clinical projects in educational administration:
Faculty. Permission required. Four clinical projects (one each in organizational anal ysis, management science, policy analysis, and institutional analysis) are required for the Ed.M. and the Ed.D. and to meet $N$ ew York State's Administrator Certification requirements. Two clinical projects are required for the M.A. degree. Two clinical projects must be completed by students in the doctoral program to be eligible to take the Program's certification examination. Additional information is available from the printed leaflet entitled Clinical Projects available in the Program Office, our W eb page, or from your A cademic Advisor.
Note: Clinical Projects may also be completed in regular courses in which students are enrolled.

- ORLA 6211. Section 1-

Clinical project: Organiza-
tional analysis (1-4 per section)

- ORLA 6221. Section 1-

Clinical project: Management
science (1-4 per section)

- ORLA 6231. Section 1-

Clinical project: Institutional
analysis (1-4 per section)

- ORLA 6241. Section 1-

Clinical project: analysis (1-4
per section)

## ORLA 6460 (Fall) and ORLA 6461 (Spring). Internship in

Organization and Leadership (3)
Permission required. Individualized internships for students. Internship in schools 20 hours per week.

Section \#01- Professor TBA
Section \#02- Professor Petrides Section \#03- Professor Sobol;

Section \#04- Professor K ane; Section \#05- Professor TBA $N$ ote: there are no Sections 5 and 6.
Section \#07- Professor H eubert;
Section \#08- Professor Richards;
Section \#09- Professor Orr;
Section \#10-Adjunct Professors;
Section \#11- Professor Shipps

## ORLA 6500. Program leader-

 ship: Design and evaluation (3)Professor K ane. The administrative responsibility in professional devel opment, job restructuring, faculty motivation, and participa tive decision making.

## Colloquia in educational administration

Colloquia centered upon an anal ysis of selected research in each of the four major areas of administration and the implications of this theory for administrative practice.

ORLA 5689. K lingenstein colloquium: Visiting fellows (4) Professor K ane. Permission required.

ORLA 6611. Colloquium: Organizational behavior (3)
Professor Smith. Discussion of historical development of perspectives and paradigm shifts in the study of organizations. G reater emphasis is placed on organizational cultures and on the meaning of politics as a community building process. A central question concerns the meaning of information technology for leadership in the reform and development of schools as institutions. Active participation in colloquium format based on selected readings.

ORLA 6621. Colloquium: Management science (1-4 per section) Professor Richards. Permission required.

ORLA 6631. Colloquium: Institutional analysis (1-4 per section) Professor K ane. Permission required.

ORLA 6641. Colloquium: Policy analysis and action (1-4 per section)
Professor Orr. Permission required.
ORLA 6900. Research and independent study in educational administration (1 or more). Spe cial individualized work. Permission required.
Section \#01-Professor TBA
Section \#02- Professor Petrides
Section \#03- Professor Sobol;
Section \#04-Professor K ane;
Section \#05-Professor TBA
Section \#06-Inquiry Program only;
Section \#07- Professor H eubert;
Section \#08-Professor Richards;
Section \#09- Professor Orr;
Section \#10-Adjunct Professors;
Section \#11-Professor Shipps
ORLA 7500. Dissertation seminar in educational administration (1-3)
Professor Richards. Registration required of all doctoral candidates in this course or in two other courses in ORLA 7500-7503 series offered by faculty of department. Development of doctoral dissertation proposal s and presentation of research plans for approval. Note: The formal hearing of a dissertation proposal (blue form) is a sepa rate event.

ORLA 7501 and ORLA 7503.
Research seminar (1-4 per section)
Faculty. For the student at the dissertation level. Emphasis on the individual student's area of concentration for the purpose of critiquing work, while simultaneously anal yzing the implications of the research for education.
Section \#01- Professor TBA
Section \#02- Professor Petrides;
Section \#03- Professor Sobol
Section \#04- Professor K ane;
Section \#05-Professor TBA
Section \#06-I nquiry Program only;
Section \#07-Professor H eubert;
Section \#08- Professor Richards;
Section \#09- Professor Orr;
Section \#10-Adjunct Profes sors;
Section \#11-Professor Shipps

ORLA 7570. Research in administration (1-4 per section) Faculty. Permission required. Advanced seminar involving a critical review of important works in educational administration and presentations of works in progress. $U$ se section numbers of ORLA 4900.

ORLA 7573. Advanced seminar (1-4 per section)
Faculty. A dissertation seminar, the content of which is the formal presentation of students' dissertation work and discussion of the implications for the practicing administrator

Section \#01- Professor TBA
Section \#02- Professor Petrides;
Section \#03- Professor Sobol;
Section \#04- Professor K ane;
Section \#05- Professor TBA
Section \#06- Inquiry Program only;
Section \#07- Professor H eubert;
Section \#08- Professor Richards;
Section \#09— Professor Orr;
Section \#10-Adjunct Professors;
Section \#11- Professor Shipps

## ORLA 8900. Dissertation

 advisement in educational administration (0)Faculty. Individual advisement on doctoral dissertation. Fee: to equal three points at current tuition rate for each term. For requirements see section on Continuous R egistration.

ORLA 9900. Research and independent study in educational administration (1 or more) For post docs only.

## Institutional Analysis

ORLA 4031. Leadership and institutional analysis: Early childhood education administration (3)
Faculty. The instructional program, school organization, public policy, staff personnel, funds, and facilities from the perspective of the early childhood education program leader.

ORLA 4033. Leadership and institutional analysis: Administration of secondary schools (3) Faculty. Organizing and administrating schools as institutions; comparative study of school designs in context; governance and decision making; community building, change and reform; teaching and support services.

ORLA 4038-ORLA 4039. Leadership and institutional analysis: Administration of elementary schools (3)
Professor Levin. ORLA 4038 deals with the elementary principalship, linkages to the community, and the instructional program. ORLA 4039 focuses on school organization, pupil personnel, teacher personnel, and funds and facilities. Registration for either one or both courses is permitted.

## OR LA 4044 Transforming

schools (3)
Faculty. Collaborative field study of transformation process within specific urban/suburban systems. Focuses on leadership for creating institutional cultures incorporating community building and national calls for new standards of student learning.

## ORLA 4045. Restructuring schooling in urban environ-

 ments (3)Professor Shipps. Institutional and policy analysis of school redesign experiments in urban settings, with special emphasis on the Chicago Case, review of the theoretical foundations research support and implementation consequences, and analysis of how both experimental and systemwide change is created.

## ORLA 4060. D esigning Charter

 Schools (3)Faculty. Design focus on instructional, governance, accountability systems, and organizational patterns. R eference to research on school models and on legislative and regulatory context of charter schools. Charter school leaders partici pate as resources Collaborative field and electronic studies of existing charter schools.

ORLA 4070. The institutional analysis of private schools (3) Professor $K$ ane. A consideration of the diversity, purposes, organization, and structure of private schools and an anal ysis of faculty and administrative roles as compared with public schools.

ORLA 5052. Program leadership (2-3)
Faculty. Focuses on dilemmas fac ing institutional leaders in an effort to promote reflection-inaction among administrators. Spe cial fee: \$10.

ORLA 5055. School administration and cultural diversity (3)
Faculty. An in-depth exploration of major challenges posed by cultural and linguistic diversity from the perspective of the school administrator.

ORLA 5532. Leadership and institutional analysis: The community and program development (2-3)
Faculty. School community relationships, needs assessment, program planning, and evaluation of student progress. Special emphasis on the principalship.

ORLA 5587. K lingenstein seminar for independent school educators (1-3)
Professor K ane. Permission required. A comprehensive examination of contemporary educational issues in public and private schools to provide a context for anal yzing and understanding teaching and learning in independent schools in broader perspective. Readings, discussions, and site visits.

ORLA 5820. Principals Work Conference (N oncredit or 1) Faculty. Developed in conjunction with an advisory board of principals. School leaders will explore creative administrative problemsolving in terms of community building, curriculum models, school design, school-community assessment, and inter-institutional relations in the context of school reform. Participants will attend to current research. A second point of credit can be earned by registering for OR LA 4900. M eets for three days in early June

## Organizational Behavior

ORLA 4010. Introduction to organization and change theory in education (3)
Professor Orr. An introduction to various psychol ogical, sociol ogical, and cultural perspectives on organizational behavior and their application to organizational problems.

## ORLA 4011. Behavior in organi-

 zations (3)Professor Orr. Psychological, social, and cultural factors in the establishment and development of educational organizations.

## ORLA 4030. Ethical Issues in

 educational leadership (3) Professor Sobol. An examination of ethical issues inherent in educational leadership, with an emphasis on ethical practice as well as theory. The ethics of rights, justice, and care applied to moral dilemmas arising from the professional literature, the humanities, and the student's own practice.
## ORLA 4071. The administration of private schools (3)

Professor K ane. Permission required. The aim of this course is to develop further the ability to exercise leadership and to increase the capacity to sustain the demands of leadership. The specific goals of the course are, within the context of private schools, to increase knowledge of administra tive practice; to cultivate skills, including effective teamwork; and to develop habits of mind, such as reflective practice and openness to multiple perspectives

ORLA 5012. Community politics, community policies, and administrators (3)
Faculty. Political anal ysis of administration at the service delivery and community levels.

ORLA 5016. Law and educational institutions: Equity issues (3) Professor H eubert. This course focuses on issues of equal educational opportunity. Topics include desegregation; bilingual education and other services for English-Ianguage learners; harassment based on race, sex, and sexual orientation; employment discrimination; school finance reform; special education; HIV/AIDS; affirmative action; and issues of race and gender in testing, curriculum, and instruction.

ORLA 5017. Groups and interpersonal behavior (2-6)
Faculty. Organizational behavior with reference to interpersona relationships and the conflicts resulting from the needs of individual s compared to the demands of the organization. Special Permission required. Special fee: $\$ 50$.

## ORLA 5018. Understanding

 authority and exercising leadership (3)Faculty. This course provides an opportunity for students who want to explore theory and experience of leadership, authority, and change. The course examines the conscious and unconscious dimensions of group and intergroup dynamics with a focus on reflective practice and professional development for change and growth. Special Permission required. Special fee: $\$ 50$.

## ORLA 5049. Program leader-

 ship in multicultural settings (3) Faculty. In-depth exploration of multiple aspects of the practice of reflective leadership in multicultural milieu. Includes collaborative action research and conflict resolution training.
## ORLA 5054. Program leader-

 ship: A dvanced cases and concepts (3)Faculty. Emphasizes application of anal ytic frameworks to the development of schools in their social context. Focuses on the advocacy design process in actual urban set-
tings. Site visits and writing of case studies.

ORLA 5530. Action research in organizational behavior (3)
Professor Orr. Techniques and methods of designing and conducting action research on organizational problems. Various methodological and organizational issues are addressed on the use of action research to foster organiza tional learning and problem solving through systematic inquiry and reflection. Students conduct an action research project.

## ORLA 6018. Staff personnel

 administration (3)Faculty. H uman resource needs, certification, selection, assignment, promotion, salaries, retire ment, absences, eval uation, development, tenure, academic freedom, teachers' organizations, grievances, collective negotiations.

ORLA 6552. Behavioral analysis of leadership (3)
Faculty. Critique of and application of research on leadership. A nal ysis of case studies, with the development of a strategic plan for a case site.

## ORLA 6610. Colloquium in

 managerial behavior (3)Faculty. Permission required. Emphasis upon classic studies and analysis of the implications of research for organization theory and administrative practice.

## Management Systems

ORLA 4021. Introduction to management systems (3) Faculty. Co-requisite: ORLA 4022. An introduction to the fundamental principles and concepts of management information systems. The course examines the management of information systems across several different types of organizations, with an emphasis on the management of educationrelated information systems in K-12 as well as in institutions of higher education. The course explores both the theoretical as well as practical implications of information systems. Several key themes are addressed, such as: looking at how information systems can increase the problem-
solving capabilities within an organization or school; and exploring how information can enable leaders to perform their jobs more effectively. Special fee: $\$ 50$.

ORLA 4022. Introduction to management systems-lab (1) Co-requisite: ORLA 4021. The purpose of this lab is to provide students with technical hands-on computer experience in web-based technol ogies and database design. This lab is designed to build the capacity of students to conceptualize and develop data-based information systems. Students will be introduced to resources and participate in exercises rel ated to the design, implementation, and maintenance of an information system.

## ORLA 4025. School business

 administration (3)Professor Richards. Introduction to school business administration including overview of fiscal and property accounting, district and site-based budgeting, cash planning, purchasing and supply management, transportation systems, operation and maintenance of facilities, and management of food services. Special fee: \$30

ORLA 4055. Economic concepts, the administration of educational institutions and policies (3)
Faculty. Course concepts include: the economic value of education to society, the economy, and individuals; theories on the linkages between education and income; the interplay of physical, human and social capital; educational production functions and allocative efficiency; cost benefit and cost effectiveness analysis in education; the distribution of education among competing groups and individual s; teacher markets and salary determination; and educational planning.

## ORLA 4062. School business administration: Non-public schools (3)

Professor Richards. Emphasis on non-public schools. Introduction to school business administration including an overview of accounting, financial planning, budgeting, scholarships, endowments, capital planning, sal aries and pensions, and cash management.

ORLA 4820. Summer institute in management systems (4) Faculty. Broad introduction to the conceptual underpinnings and intensive hands-on application of microcomputer-based techniques for management planning, resource allocation, information systems design, and data basedpolicy and decision analysis in both public and private organizations. Special fee: $\$ 50$.

## ORLA 4874. Strategic market-

 ing for academic institutions (3) Faculty. This course focuses on marketing concepts for private schools and non-profit organizations. Students explore how institutions describe themselves and how they relate to various external publics such as students, parents, board members, and donors. Topics of study will include mission statements, core marketing approaches and strategies for growth and communication. Students work in groups to design a marketing plan for an organization of their choice.
## ORLA 4876. School finance: Resource allocation for nonprofit organizations (3)

Faculty. An exploration of the business aspects of managing private schools and non-profit organizations The focus is on critical issues of management including: decision making, strategic planning, and analysis and allocation of resources. Participants anal yze complex issues and problems confronting leaders in private schools such as enrollment and tuition stabilization, pricing and affordability, funding sources, endowment management, and government compliance.

## ORLA 5020. Information systems for decision making in learning organizations (3)

Faculty. A theoretical, conceptual, and operational anal ysis of information systems used for decision making and problem solving in learning organizations. An integral part of the course involves devel oping the technical and analytical skills necessary to manage information systems, with an emphasis on those systems that are designed to make it possible for organizations to transform their information-based systems into knowledge-based sys-
tems. Emphasis is also placed on understanding the environmental system in which the organization exists. Special fee: $\$ 50$.

ORLA 5021. Management science (3)
Faculty. Prerequisite: ORLA 4021 or permission of instructor. Allocation and predictive models for management. Principles and applications of decision and utility the ory. Economic and cost-benefit analysis and linear programming. U tilization of smoothing, regression, and simulation techniques for planning and forecasting.

## ORLA 5025. Ecology of educa-

 tional planning and management (3)Professor Richards. This course takes an open systems or ecol ogical approach to planning and management in educational institutions of all kinds, including pre-school, elementary, secondary, higher education, and other public and private institutions. It focuses on both the personal and institutional nature of planning in complex, highly adaptive organizations. Students will learn how to conduct ecological audits, develop strategic plans, benchmark organizational performance, and write policy options briefs. Some familiarity with computers recommended. M aterials fee: \$10.

## ORLA 5027. School fund

 accounting (3)Faculty. Prerequisite: ORLA 4025 or equival ent. Examination of the basic mechanics of financial accounting for public school systems. M anagerial uses of accounting for providing internal control and information for decision making are also explored.

## ORLA 5050. Program leader-

 ship: Grants funding workshop (3)Dr. Segall. U se of word processor, spreadsheet, and database to create actual federal grant proposal appropriate to work site. Dual focus on learning application and development of funding proposals as planning documents. Special fee: \$10. * C omputer Lab mandatory for second hour of class.

OR LA 6019. Labor management relations in education (3)
Faculty. Enrollment limited. N egotiations as administrative process for decisions and manage ment of patterns of remuneration and conditions of work. Cases and simulation. Special fee: $\$ 30$.

## ORLA 6020. Seminar in man-

 agement systems (3)Faculty. Permission required. Intensive study and field-based activities related to information systems and to school business administration topics. Students complete individual projects in conjunction with administrators from public or private organizations.

## Policy Analysis and Action

ORLA 4040. Education policy decision making (3)
Faculty. An introduction to policy analysis concepts and techniques in a range of school and nonschool settings. Emphasis on technology and learning.

## ORLA 4042. The role of the

 state in education governance, policy and practice (3)Professor Sobol. The impact of state authority on local schools and school districts, seen through case studies of contemporary educa tional issues. R oles, relationships, trends, and the political context of policy making at the state level.

## ORLA 4046. School finance:

Policy and practice (3)
Professor Richards. Examination of the judicial and legislative involvement in school finance reform, taxation, and the equity and efficiency of local, state, and federal finance policies and systems. M aterials fee: \$25.

## ORLA 4047. Political policy

 analysis in education (3)Professor Shipps. An overview of theories and techniques of political policy anal ysis as they apply to education. Emphasis on developing politically feasible and technically attractive responses to the policy problems facing educational leaders in schools, districts, states and the federal government, as well as non-governmental actors. Theories based in political science are applied to actual cases. K ey
organizing themes are value dilemmas in highly contested and uncertain decision arenas, and the signifi cance of policy contexts in education. M aterials fee: \$30.

ORLA 4058. Privatization and choice in education (3-4)
Professor K ane. An investigation of the controversial issues concerning the choice movement. Topics include: charter schools, vouchers, home schooling, and for-profit educational enterprises. Discussions focus on how various forms of choice fit with the democratic ideal of education and who stands to benefit or lose from the various forms of school choice.

## ORLA 4086. Law and educa

 tional institutions: Issues of authority, religion, free speech, and safety (3)Professor H eubert. This introductory course focuses on legal issues that arise in public and private schools. Topics include regulation of public and private schools; church-state issues; free speech rights of students, teachers, and extracurricular groups; who controls the curriculum; the authority to make and enforce rules governing student and staff conduct, on and off school grounds; the duty to protect the safety of students and others; child abuse; search and seizure; and due process.

## ORLA 5046. School finance:

## Resource allocation (3)

Faculty. In-depth analysis of factors affecting the cost and quality of educational services within districts and within states. Examination of methods to improve equity and efficiency in the allocation of resources. Special fee $\$ 10$.

## OR LA 5541. Federal politics,

 federal policies, and administrators (3)Faculty. The impact of federal policies on administrators and vice versa. Examines the interac tion between the political arena and the policy arena. Attention to a number of topical areas of policy including implementation studes, the problem of innovation, and nonschool-based educating institutions.

OR LA 5544. Current topics in policy analysis for administrators (3)
Faculty. Collaborative work groups on topics such as media and education, telecommunications, and the role of entertainment industries. Especially appropriate for clinical projects and/or exploration of dissertation topics.

## ORLA 5645-ORLA 5647. Topics

 in policy planning and implementation:- ORLA 5645. Intergovernmental relationships (3)
Faculty. Intergovernmental rela tionships, program assessment including national standards, program development cycles and leadership implications. - ORLA 5646. Concepts and techniques (3)
Professor Sobol. Concepts and techniques of policy planning and implementation anal yzed through theoretical readings and case studies at local, state, and national levels. Cases are drawn from both education and other spheres of public administration. - ORLA 5647. Effective schools (3)
Faculty. Examination of suggestions by various authors of critical features and elements that make schools effective.
$N$ ational, state, and organizational reports, as well as individual authors will be studied.


## - ORLA 6540. Topics in urban

 education policy (3)Faculty. Leadership responsibility in the formulation, implementa tion and assessment of urban education policy.

## ORLA 6542. History and politics of urban school reform (3)

 Professor Shipps. This survey course prepares students for their roles as leaders of institutional change by acquainting them with our legacy of urban school reform, its trends and cycles. It covers political issues in historical context. Multiple versions of accountability, standards, equity, and access make up the cycles of reform to be examined, al ong with the pedagogical and governance dilemmas (progressivism vs. traditional ist, central ization vs. decentralization) that underlie them. The cross cutting political con-cerns of power, class, race, gender and relation will be woven into discussions and course work.

## Higher Education

(Code: TD)
Program Coordinator:
Professor A nna N eumann
For Admission inquiries:
212-678-3710
Program Office: 212-678-3750
W eb Site:
http://www.tc.columbia.edu/ academic/o\&/dept/highered/ hedhome.asp

## D egrees Offered:

M aster of Arts (M.A.)
Student Personnel Administration (Code: TDH)
Higher Education Administration (Code: TDJ)
M aster of Education (Ed.M.)
Student Personnel Administration (Code: TDH)
Higher Education Administration (Code: TDJ)
D octor of Education (Ed.D.)
Higher Education (TDJ)

## Special Application Requirements/Information:

 A pplications are considered for fall enrollment only.The M aster of Arts programs are designed for persons preparing for general administrative positions, or who are al ready employed in entry-level positions in universities, two- and four-year colleges, technical institutes, professional schools, and non-profit organizations.

The M aster of Education programs are avail able to those who have at least two years of professional experience who wish to engage in advanced study without undertaking the commitment of a doctoral program.

A pplicants to the doctoral program should submit a schol arly writing sample and resume or vitae with their applications. It is strongly recommended that
doctoral applicants have a master's degree as well as pertinent work experience.

## Program D escription:

As the field of higher education becomes more complex, the need for well-prepared, carefully trained leaders becomes increasingly more important. The Higher Education program at Teachers College is dedicated to the mission of hel ping provide exceptional leaders to colleges and universities, both in the U nited States and abroad. The program is committed to a philosophy of education which builds constructively on contemporary theories devel oped in research and practice as they are imaginatively applied to educational problems. It is a blend of offerings in theoretical foundations of educational thought and of training in practical application of those theories.

Advanced preparation for work in higher education includes elements of education in the basic liberal arts and social science disciplines and advanced instruction in a field of scholarship and education related to professional practice. The program al so hopes to foster an integrated perspective among administration, organizational analysis and development, behavior and management, teaching, counseling, multicultural issues, adult development theory and practice, and higher education policy.

The program in Higher Education prepares educators and leaders for administrative and academic positions in a broad range of post-secondary educational institutions. Our mission is two-fold: First and foremost, we prepare schol ar-practitioners who create and implement cut-ting-edge policy based upon enhanced skills as professional educators, researchers, and the-ory-builders. Second, we develop a smaller number of
researcher-theorists who prepare professionals in the field of higher education.

The program has been designed to provide professional preparation and assist students in developing their expertise as administrators, practitioners, researchers, and college faculty and in related state and federal offices and foundations. It bears special responsibility for preparing leaders to the degree that its graduates have unique opportunities to shape organizational goals, to influence the character of educational programs, and to affect institutional performance.

Graduates of our program have served as presidents, vice-presidents, deans of students, academic deans, academic department chairs, graduate faculty, business managers, financial aid officers, admissions directors, registrars, devel opment officers, college union directors, affirmative action officers, multicultural affairs coordinators, placement directors, public relations offices, directors of institutional research and planning officers, as well as in other positions of institutional, state, and national leadership.

The Higher Education program uses a pedagogical approach that incorporates areas of study that are fundamental to effective higher education administration both now and in the future: administration and leadership, policymaking and research, teaching and learning, adult and professional devel opment, and multicultural issues and concerns.

The program in Higher Education offers three degree programs: M aster of Arts (offered in both Student Personnel Administration and H igher Education Administration), M aster of Education (offered in both Student Personnel Administration and Higher

Education Administration) and a D octor of Education in H igher Education with five opportunities for special ization: 1) College Teaching, 2) Organization Leadership, 3) Student Personnel Administration, 4) Student Development, and 5) Higher Education Policy. These areas of specialization are not mutually exclusive paths to professional preparation. All students are required to be proficient in each of these areas.

## Master of Arts

The 32 point $M$ aster of Arts program in Higher Education Administration is designed for persons preparing for general administrative positions, or who are al ready employed in entry-level positions in universities, two- and four-year colleges, technical institutes, professional schools, and non-profit organizations.

The program uses a pedagogical approach that incorporates four primary perspectives: administration and leadership, adult development theories, counseling, and multicultural and diversity issues and concerns. Graduates are therefore prepared to help with the growth and development of all college students, address multicultural concerns throughout their institutions, implement administrative skills and knowledge, as well as demonstrate counseling abilities and other helping skills.

The field of student affairs has a long and proud tradition of supporting and enriching the personal and academic lives of college students and of improving the administrative functioning of student services offices. The SPA program, as the first graduate program in Student Personnel Administration in the world, has an historic role in that tradition. The M.A. program is designed for people interested in student affairs work in colleges, univer-
sities, two-year institutions and professional schools. Students in this program focus additional attention reflecting on the increasing diversity on today's college campuses with respect to race, ethnicity, nationality, gender, and age. The student body is comprised of recent college graduates, career-enhancers, and individuals seeking career changes.

## Master of Educ ation

The M aster of Education degree program, a 60-point program provides specialized professional preparation in such areas as leadership and management, organizational theory, and finance. It al so provides a specialization component for doctoral students, who ordinarily meet Ed.M. requirements in the course of working toward the doctorate.

The Ed.M. program in Higher Education and Student Personnel Administration has been designed to provide professional competencies in each of the following areas: (1) Foundational studies-this area includes study in the historical, philosophical, psychological, cultural, sociological, and research foundations of higher education; (2) Professional Studies-student development theory, student characteristics and effects of college on students, individual, group and organizational behaviors and interventions, organization and administration of higher education and student affairs, assessment, eval uation, and research; (3) Supervised Practice; (4) translation of theoretical knowledge about the development of organizations, groups, and individual s into purposeful practice; and (5) multicultural awareness, knowledge, and skills. Clearly, this program has been designed to exceed the Council for the A dvancement of Standards in H igher Education (CAS) guidelines.

The Ed.M. or M.A. degree recipient will have professional competencies in each of the following areas:
(a) understanding and defining the role and functions of student personnel work in higher education
(b) identifying factors affecting human and organizational behavior
(c) translating theoretical knowledge about the development of organizations and individuals into meaningful practices of the profession
(d) interpreting research significant to the profession and conducting and applying rel ated research at a rudimentary level
(e) performing thefunctions of program assessment, design, implementation, and evaluation, as appropriate.

Graduates of these programs are prepared to seek employment in a variety of student affairs and higher education settings such as: academic advising offices, academic support offices, student activities centers, Greek and other student organizations advisement centers, career planning and placement offices, residence life offices, HEOP, TRIO, and minority student affairs offices, student unions, orientation offices, learning centers, institutional research, admission offices, financial aid offices, commuter affai rs offices, college and university staff training and development offices, etc.

## Doctor of Education

The doctoral program in Higher Education has been designed to provide professional preparation and to assist doctoral students in devel oping as expert administrators, researchers, policymakers, and college faculty and in related state and federal offices and foundations. The program bears special responsi bility for preparing leaders to the degree that its graduates have unique
opportunities to shape organizational goals, to influence the character of educational programs, and to affect institutional performance. Graduates of this program have served in positions of institutional, state, and national leadership such as presidents, vice-presidents, deans of students, academic deans, graduate faculty, business managers, financial aid officers, admissions directors, registrars, devel opment officers, college union directors, affirmative action officers, multicultural affairs coordinators, placement directors, public relations offices, directors of institutional research and planning officers, as well as in other positions of institutional, state, and national leadership.

## D egree Requirements

N ote the basic research requirements for all students in the department

## M aster of Arts (Higher Education Administration)

The M.A. in Higher Education requires a minimum of 32 points of graduate course work and a comprehensive departmental project.

## M aster of Arts (Student Personnel Administration)

The M.A. requires a minimum of 32 points of graduate course work, an intensive internship (approximately 15-20 hours per week), and a comprehensive examination.

## M aster of Educ ation (Higher Education Administration)

The Ed.M . in H igher Education Administration requires a minimum of 60 points and an Integrative paper.

## M aster of Arts (Student Personnel Administration)

The Ed.M. in Student Personnel Administration requires a minimum of 60 points of graduate course work, an intern-
ship, and a comprehensive examination.

## Doctor of Education

The Ed.D. in Higher Education requires a minimum of 90 points of graduate course work, a certification examination, and a dissertation. Course work is completed in the following areas:
Program core courses 27 points
Theoretical foundations/
broad and basic areas of
scholarship 9 points Specialization 15 points
M odes of inquiry/research/
preparation for
dissertation 15-21points
Provision for individual
needs and interests/
electives 18-24 points

## Courses:

## ORL 5521. Introduction to

 research methods in education (3)Professors K nefelkamp, N eumann, Richards, and Shipps. This course meets a D epartmental requirement for an introductory course on understanding research across a wide spectrum of educational settings. B asic concepts of research methods and theories of research are introduced so that students can read and critique education research and evaluation. M ethods discussed will include both qualitative and quantitative approaches to research, such as surveys, case studies, ethnography, partici pant observations, interviews, and oral histories.

ORLD 4010. Purposes and policies of higher education (3) Professor Anderson. An introduction to theU.S. system of higher education through an overview of the system and its history, a survey of the missions and purposes served by U.S. colleges and universities, and an investigation of some of the pressing policy questions now confronting those institutions.

## ORLD 4011. Curriculum and instruction in higher education

 (3)Professors K nefelkamp and Levine. An introduction to the history, trends, and issues pertaining to curriculum in U.S. higher education. Internal and external influences on curriculum decisions and implications for the organization and administration of colleges and universities. Examination of past and current curriculum trends, including the impact of the new scholarship of gender, race and class.

## ORLD 4012. The community college (3)

Dr. Hankin. Emerging issues, problems, and trends in community colleges, technical institutes, and adult education. Topics include the history and philosophy of the community college movement, students, state and local governance, teaching, student personnel work, finance, adult education, and the future of the community college.

ORLD 4020. College and university organization and administration (3)
Professor Anderson. Basic aspects of college and university organization and administration with consideration given to the roles of various groups in governance and management as well as organizational processes such as leadership, decision making, and conflict resoIution. External and internal constraints examined from conceptual, practical, and policy perspectives.

ORLD 4022. College personnel policies and practices (3)
Faculty. Personnel problems in colleges, including faculty and staff eval uation, recruitment, affirmative action, promotion, tenure, retrenchment, leadership/management and personnel development.

ORLD 4030. The economics of post-secondary education (3)
Professor Dougherty. A theoretical and practical discussion of public/private finance of higher education. Economic and social rationales are discussed as well as specific financing proposals.

## ORLD 4031. Financial administration of higher education institutions (3)

Dr. Baldwin. The course is intended for those who will be involved in the budgeting process at colleges and universities. No previous financial training is required. The course is an introduction to business principles and their importance for decision making in higher education. Topics include budgeting, accounting, financial reporting, and planning.

## ORLD 4040. The A merican col-

 lege student (3)Professors Dougherty and $K$ ne felkamp. Reviews the demographic data about students, the changing relations of students to colleges, the diverse patterns of structure and function by which colleges individualize education and provide for student development, and the influence of colleges upon students.

ORLD 4041. Student personnel administration: Organization, functions, and issues (3)
Faculty. Permission required. An introduction to various forms of organization and functions: multidisciplinary foundations, including historical and philosophical foundations and conceptual and research contributions from the behavioral and social sciences.

ORLD 4042. Student personnel administration: Programs and services (3)
Dr. Christensen. A survey of programs and services typical of American colleges and universities. Includes contemporary issues of concern to student personnel administrators.

## ORLD 4043. Developmental

 academic advisement programs in colleges and universities (3) Faculty. A survey of theory and research and an examination of the various organizational, administrative, and staffing arrangements that pertain to student advisement programs in colleges and universities.ORLD 4051. How adults learn (3)

Professor K nefelkamp and Drs. Gonzal ez and Langer. Role and perspective changes in adulthood, concepts of maturity, learning theories, personality development, cognitive learning and thinking, creativity, interests and attitudes, motivation, self-concept, and achieving styles. Implications for the education of adults in a wide variety of workplace, community, and educational settings.

## ORLD 4500. Special topics in higher and adult education (1-3)

Faculty. Periodic explorations of special topics and issues in fields of higher education administration, student personnel administration, adult and workplace education, and college teaching and academic leadership.

## ORLD 4800. Workshop in

 higher and adult education (0-3) Faculty. Special topics or events related to the administration of programs of higher or adult education. Topics change each semester. Open to degree and nondegree students for credit or N oncredit.ORLD 4820. Cultural diversity training in higher education settings: I ssues and concerns (1) Professor K nefelkamp. This introductory workshop will address multicultural training issues in higher education such as workshop and intervention design, assessment issues and methods, ethical concerns, group process, and general training considerations.

## ORLD 4830. Transforming the curriculum: Theory and prac-

 tice (3)Professor K nefel kamp. This course is designed to explore both the cognitive and cultural implications of curriculum design. It emphasizes the theoretical and practical implications of curricular transformation based on the new scholarship of gender, race, class, and ethnicity as well as student intellectual and interpersonal development.

ORLD 4845. D iversity: Implica tions for recruitment and retention (1)
Professor A nderson. Students will explore aspects of cultural diversity and multiple oppressions (race, class and gender), as well as environmental concerns affecting the recruitment and retention of diverse student and faculty population in the context of A merican higher education.

## ORLD 5011. College teaching and learning (3)

Professors K nefelkamp and $N$ eumann. Designed for individuals who aspire to college teaching, this course emphasizes research on student learning, multiple pedagogies (such as experiential learning, learning communities, effective lecture, discussion, evaluation approaches, and curriculum design.) The course stresses the implications of diversity in the student population.

ORLD 5021. Patterns of organization and management in higher education (3) Professor Anderson. Prerequisite: ORLD 4020 or an introductory course in higher education; a course in organization theory is strongly advised. The study of college and university organization from multiple perspectives, with emphasis given to understanding their implications for executive and management practice.

## ORLD 5022. The issue of quality in postsecondary education (3)

Faculty. Examination of the issue of quality as it exists and is debated in higher education. Looks at the evolution and development of the issues of quality as they manifest themsel ves in accredita tion, assessment, program review, and total quality management. Course investigation will begin at the macro (institutional) level and progress to the micro (classroom, student) level.

## ORLD 5044. Theories of diver-

 sity and higher education (3) Professors K nefel kamp and Anderson. Critical anal ysis of cultural diversity in A merican higher education with respect to the curriculum, co-curriculum, and institutional structure. Presents newparadigms with which to understand the complexities of response that are necessary to adequately meet the needs of all students.

## ORLD 5045. The Multicultural

 self in higher education (3) Professor K nefelkamp. Course focuses on issues of identity development, social and cultural diversity, and the intersections of multiple aspects of the self. Perspectives of social identity devel opment, intellectual and ethical maturity, social learning theory, and intercultural anal ysis are major components in the study of the individual.ORLD 5241-ORLD 5242. Observation and supervised fieldwork in student personnel administration (3)
Drs. Bauman and Christensen. Permission required. Prerequisites: ORLD 4041 and ORLD 4042. Students reserve two days a week for work in colleges. A weekly seminar integrates field practices with course theory.

ORLD 5522-ORLD 5528. Advanced professional seminar Faculty. Intensive anal ysis of selected problems and issues in postsecondary education. The course is intended for practicing professionals in postsecondary education as well as majors in the department. Other students in the college who wish to enroll should obtain permission of the instructor.

## - ORLD 5522. The chief student affairs officer (2)

Faculty. Consideration given to the roles of such officers in colleges and universities, to their responsibilities and authority, and to their relations with presidents, faculties, students, and their own staff. Registration is restricted to doctoral candidates in the Higher and Adult Education programs and requires the permission of the instructor. - ORLD 5524. An analysis of student cultures (3)
Professor K nefelkamp. Critical anal ysis of sel ected research reports pertaining to the student cultures. The focus is on the purposes of each study, the question(s) asked, the assumptions and theories upon which
the research is based, the sources of data, the method(s) of data collection, the conclusions and interpretations developed, and the relevance of the research to student personnel in particular, and to higher education in general.

- ORLD 5525. College student development theories I (3)

Professor K nefel kamp. Course focuses on college student development theories and their application to higher education. Primary areas of focus include: 1) intellectual and ethical developmental theory, individual development models, learning styles models, and theories of cultural identity 2 ) ethical considerations using theory in practice, and 3) critique of theories from a variety of research perspectives.

- ORLD 5526. The literature of higher education (2-3) Professor $N$ eumann. Anal ysis of selected classic and contemporary works that have influenced professional thought and affected public opinion and public policy related to higher education. Topics vary from year to year.
- ORLD 5527. The college
professoriate (3)
Professors K nefelkamp and Neumann. Review and discussion of the research and literature, diverse roles, and expectations that characterize the position of college professor, with attention to implications for professional and personal development.
- ORLD 5528. Legal aspects of the role of the college teacher (2) Faculty. Topics include legal aspects of faculty employment, academic freedom, faculty-student relations (academic and disciplinary), and liabilities.


## ORLD 5531-ORLD 5537.

## Advanced professional skills

 Intensive work in special skill areas for the management of postsecondary education. The sections involve practical experiences and possibly fieldwork. These courses are intended for practicing professionals in post-secondary education as well as for majors in the department. Other students who wish to enroll should obtain the permission of the instructor.- ORLD 5531. Collective bargaining (2-3)
Faculty. The theory and practice of faculty collective bargaining from institutional, organizational, and inter-group perspectives. Participants participate in bargaining exercises and engage in the simulated negotiation of a complete college contract.
- ORLD 5533. Faculty evaluation and development programming (2-3)
Faculty. Theory and practice concerning the evaluation of college teaching. Topics include models and practices for the evaluation of faculty and for the organization and administration of faculty development programs.
- ORLD 5534. Financial decision making in education (2-3)
Faculty. Introduction to a series of financial decision-making tools including cost accounting, cost benefit analysis, and discounted cash flow. Emphasis on applied financial decision making.
- ORLD 5536. College classroom assessment (3)
Professor K nefelkamp and Dr. K aye. An in-depth study of major assessment techniques for the college classroom. Particular attention will be paid to the work of Patricia Cross, Thomas Angelo, and Dick Light, as well as assessment models associated with coll aborative learning, teaching portfolios, and student portfolios.
- ORLD 5537. College classroom assessment research (3) Professor K nefelkamp and Dr. K aye. Prerequisite: ORLD 5536. In-depth study of classroom research methods based on the classroom assessment methods studied in ORLD 5536.

ORLD 6241. Advanced fieldwork in student personnel administration (2-6)
Permission required. Open to parttime and full-time doctoral students. Forty hours of work required for each point of credit.

ORLD 6511. Coordinating seminar in higher education (3)
Professors A nderson and K ne felkamp. Permission required. Course restricted to doctoral students in the Higher Education
program. An overview and discussion of the most topical literature in American Higher Education, this course is designed to explore a wide variety of educational roles in the context of the goal s and aspirations of new doctoral students.

## ORLD 6520-ORLD 6521.

Advanced seminar in the community college (3)
Professor Dougherty. Selected issues such as teaching in a community college, the future of the community college, or state and national systems for the community college are explored in depth Topics vary each year.

## ORLD 6550-ORLD 6551.

Advanced seminar in higher education (3)
Faculty. Intensive study of a sel ected topic. Topic varies from term to term and is typically related to an ongoing program or research project. Students may begin either term.

## ORLD 6552. Advanced seminar

 in theories of intellectual and ethical development for college students (3)Professor K nefelkamp. Permission required. Intensive study of the major theories of college student intellectual development, particularly the work of Carol Gilligan, Lawrence K ohlberg, W illiam G. Perry, Jr., K atie Cannon, and those who have expanded the research on student intellectual and ethical development. Additional models considered include R eflective Judgment and W omen's W ays of K nowing. Students will al so learn the assessment and scoring methods associated with each model.

ORLD 6556. Educational leadership: Research, art and practice (3)

Professors K nefel kamp and Anderson. Permission required. Examination of leadership research definition, dimensions, characteristics, and capacities. Exploration of leadership opportunities within entire range of educational practice A pplication of leadership lessons to educational problems and situations through case studies.

ORLD 7500. Dissertation seminar in higher and adult education (1)
Permission required. Students should have completed most or all course work (including research methods courses) and have passed the certification examination. The course is intended for students who have identified a reasonably narrow area for research and have al ready completed a preliminary literature review. The course will assist the student in design, methods, and other matters of concern in the preparation of an acceptable dissertation proposal.

## Directed Research and Independent Study

(Students must have an instructorapproved Lemrning Contract prior to enrolling in any of the following courses.)

ORLD 4900. Research and independent study in higher and adult education (2 or more).

ORLD 5900. Research in higher and adult education (1-4) Permission required. Conduct research studies (not a part of a doctoral dissertation) under guidance. Focus on a particular institution or type of institution, e.g., college of liberal arts, professional school, community college.

ORLD 6557-6558. Research practices in higher and adult education
Faculty.
ORLD 6900. Research and independent study in higher and adult education (2 or more) Permission required.

ORLD 7900. Directed dissertation proposal seminar (3) Permission required. All doctoral students eligible for this course must register each semester until a proposal hearing has occurred and a proposal has been approved.

ORLD 7500. Directed dissertation proposal seminar (1)
Students register for the course the semester a proposal hearing is to be scheduled.

## ORLD 8900. Dissertation

 advisement in higher and adult education (0)Individual advisement on doctoral dissertations. Fee: to equal 3 points at current tuition rate for each term. For requirements, see section in catalog on Continuous Registration for Ed.D./Ph.D. degrees.

ORLD 9900. Research and independent study in higher and adult education (2 or more).

## See also:

Program in Educational Administration:
ORLA 4010. Introduction to organization and change theory in education (3)

ORLA 5017. Organizations and interpersonal behavior (3)

D epartment of $H$ uman $D$ evel opment: HUDK 4024. Developmental psychology: Adulthood and the life span (2-3)

D epartment of Counseling and Clinical Psychology: CCPJ 4064. Principles and methods of psychological counseling (3)

Department of A rts and H umanities: A\&H F 5070. History and theory of higher education (3)

A\&H F 4054. Education and manpower planning (3)

Department of $M$ athematics, Science, and Technology

M STU 4030. Computer applications in education (3)

## Nurse Executive

Program Coordinator:
Professor ElaineL. Rigolosi
For Admission inquiries:
212-678-3710
Program Office: 212-678-3421
(Code: TNZ-M.A.
A ccelerated)
(Code: TN O-Ed.M., Ed.D.)
(Code: TNX-Ed.D.
A ccelerated)

## D egrees Offered:

M aster of Arts (M.A.)
M aster of Education (Ed.M.)
Doctor of Education (Ed.D.)

## Spedial Application Requirements/Information: Master of Arts

In addition to the requirements for admission to Teachers College, applicants must be Registered $N$ urses in any U.S. state or in Canada, and hold a baccal aureate degree in any field, with a cumulative grade point average of 3.0 or better. One year of post-baccal aureate management experience is required for students in the executive programs.

The accelerated M aster of A rts cohort begins every other Autumn in even years.

## Doctor of Education

In addition to the requirements for admission to Teachers College, doctoral applicants must:

- H old a baccal aureate degree with a major in any field that is approved by Teachers College, Columbia U niversity.
- H old a current Registered N urse License in a state in the U.S. or in a province of Canada.
- In lieu of the Graduate Record Examination (GRE) or the Miller A nalogies Test (MAT), applicants whose native language is not English must have a score of 600 or greater on the TOEFL examination (or a 250 on the computer-based equivalent), or a Level 10 on the Ameri-
can Language Program (ALP) test offered by Columbia University. International applicants should note that a current permit from the N ew York State Board of N ursing is required to practice nursing and/or do fieldwork.
- H ave an eighth decile on graduate work at Teachers College or a cumulative grade point average of 3.5 from other accredited institutions
- H ave a GRE verbal score of at least 540 or an MAT score of at least 54.

Potential candidates who do not meet these admission standards but who can demonstrate substantial ability shall have the option to petition the Faculty of the program to be considered for admission based on al ternative evidence of ability.

The next accelerated D octor of Education cohort will begin in the Autumn 2002 semester. The cohort following Autumn 2002 is expected to start three years later, A utumn 2005.

## Program D escription:

The Program for N urse Executive prepares students for leading roles in heal thcare organizations, both service and education. These roles are those that advance and implement the practice of nursing and heal thcare, operating primarily in one-to-one relationships with clients. H ence, the graduates of this program will have their major impact on nursing and heal thcare by influencing other interdisciplinary healthcare providers.

The basic aims of current heal thcare delivery and healthcare reform mandate a nonpartisan approach to the education of nurses and all health care administrators and executives. Professionals who practice in today's healthcare environments and shape tomorrow's reform must be collaborative interdisciplinarians.
$N$ ursing leadership in scholarship, in research, and in practice is achieved with the attainment of the doctoral degree. Toward this ultimate goal, there are various development levels of role preparation, with exit points of achievement at the levels of $M$ aster of Arts (48 points) and $M$ aster of Education ( 60 points). All role preparation in the Program for $N$ urse Executive is based upon approaches of open inquiry, schol arly pursuit, and the ability to synthesize knowledge from diverse disciplines.

## M aster of Arts

The M aster of Arts degree program for N urse Executive offers preparation for nursing and healthcare management positions in a variety of healthcare organizations, on the basic skills and concepts of management. Regular faculty members and other experts teach the courses that comprise the curriculum in the Accel erated Program for N urse Executive. The A ccelerated Program at the M.A. level is a cohort program that meets one day per week on Fridays. It runs for four semesters. Program costs currently are \$9,000 per semester of study and include tuition, fees, books and refreshments. The cost of the program is subject to change. The following is an example of a masters cohort sequence* by semester:

## D egree R equirements:

N ote the basic research requirements for all students in the department.

The Capstone Project is a requirement for all master's degree candidates. It is required during the semester in which a student applies for a master's degree, whether the M aster of Arts or the M aster of Education. Details are provided in "G uidel ines for the Capstone Project," which can be obtained from the office of the

Program for N urse Executive and from Faculty Advisors.

## M aster of Arts

Semester I

- ORL 4054, Leadership and $M$ anagement for H eal thcare Organizations (3)
- ORLN 4005, Theories of N ursing (3)
- ORLN 4050, H ealth Problems and Issues in Society (3)
- ORLN 4013, Fiscal M anagement of the N ursing Organization (3)

Semester II

- ORL 4011, Personnel M anagement in H ealthcare (3)
- ORLN 5000, N ursing Science (3)
- HUDM 4120, Basic Concepts in Statistics (3)
- ORLN 5013, Informatics in N ursing (3)

Semester III

- ORLN 5040, M ethods of N ursing Research (3)
- ORLN 5010, Administration of a $N$ ursing Organization (3)
- ORL 4003, Crisis Intervention (3)
- ORLJ 4063, Counseling in Business and Industry (3)

Semester IV

- ORL 4014, Legal Issues for H eal thcare Professionals (3)
- ORLN 6615, Colloquium in N ursing Administration (3)
- HUDM 5021, M ethods of Empirical Research (3)
- ORLN 5530, Seminar: Clinical Teaching and Evaluation (3)
* Courses and/or sequence are
subject to change.


## Master of Education

The M aster of Education degree in the Program for $N$ urse Executive requires a minimum of 60 points beyond the baccalaureate degree. At least 30 points must be earned at Columbia U niversity, and at least 18 of these points under
the auspices of Teachers College. Applicants who hold the degree of $M$ aster of $A$ rts and M aster of Science from accredited universities may transfer a maximum of 30 points of work to the M aster of Education degree. Candidates who have completed the M aster of A rts through Teachers College must offer a minimum of 45 points of the required 60 points under the auspices of Teachers College. For program course sequence recommendations, please see the $M$ aster of Education "Advisement Guide" that can be obtained from the office of the Program for N urse Executive.

## Doctor of Education

The Accelerated Program at the Ed.D. Ievel is a cohort program that meets one day per week on Fridays. The program consists of six semesters of course work leading to the Ed.D. degree. Program costs currently are $\$ 9,000$ per semester of study and include tuition, fees, books, and refreshments. The cost of the program is subject to change without notice. For program course recommendations and program planning, please see the D octor of Education "Advisement Guide" which can be obtained from the office of the Program for $N$ urse Executive. The following is an example of a doctoral cohort sequence by semester.*

## Semester I

- H U DM 4122, Probability \& Statistical Inference
- ORLN 5005, Interdisciplinary Theory in N ursing
- ORLN 6514, Marketing N ursing Programs \& Services

Semester II

- ORLN 5040, M ethods of N ursing Research
- ORLN 5551, Ethics for H eal thcare Professionals
- ORLN 6615, Colloquium in $N$ ursing Administration

Semester III

- ORLN 5043, N ursing Research Devel opment
- A\&HF 4084, Social Philosophy \& Education
- ORLN 6522, H ealth Care Policy \& Anal ysis


## Semester IV

- ORLN 6540, Dissertation Design Devel opment- Section I
- ORLN 6540, Dissertation Design Devel opment-Section II
- ORLN 6014, M anaging the Socially Responsible Organization

Semester V

- ORLN 5011, Designing, Planning and M onitoring the H ealth Care System
- ORLN 6541, Advanced Dissertation Design Develop-ment-Section I
- ORLN 6541, Advanced Dissertation Design Develop-ment-Section II

Semester VI

- ORLN 6511, Innovation in $N$ ursing $M$ anagement
- ORLN 6011, Advanced M anagement Information Systems
- ORLN 7900, Guided Study-Section I \& II
* Courses and/or sequence are subject to change
N OTE: A fter course work is completed, candidates must enroll in ORLN 8900 (Continuous Dissertation Advisement), or in another Teachers College course upon the advice of the Advisor, up to and including the semester in which the "D efense" is held and major revisions are made on the document, as recommended by the Dissertation Committee.


## Courses:

The following are recommended as general, interdepartmental courses appropriate for students throughout the College as electives and may al so be utilized by non-majors
to meet the general Teachers College requir rement. See General Offerings and Interdisciplinary Study for a course description.

ORL 4003. Crisis intervention (3) Study of general crisis phenomena within the framework of crisis intervention theory. Analysis of individual, family, and community dynamics.

## ORL 4011. Personnel management in healthcare (3)

Professor Rigolosi. Examination and application of personnel management and human relations the ory in the heal thcare organization. Includes human resource utilization, problem solving, communications theory, and evaluation performance. Special fee: \$20.

## ORL 4014. Legal issues in healthcare organizations (3)

 Professor Rigolosi. Laws, administrative regulations, and pertinent case law affecting healthcare organizations. Theories of power, politics, and labor relations applied. Local, state, and federal impact on healthcare included. Special fee: $\$ 25$.ORL 4054. Leadership and management in healthcare organizations (3)
Professor Rigolosi. Critical analysis of theory and research in organizational behavior, leadership, and management as it relates to the role of heal thcare executives. Critique of the executive's role as it relates to these theories. Special fee: $\$ 20$.

ORL 5551. Ethics for healthcare professionals (3)
Review of ethical issues in heal thcare and healthcare delivery.

## Nursing Domain <br> Fieldw ork Courses

Application for fieldwork courses must be submitted by A pril 15 for the Autumn term and by November 15 for the Spring term. Students are required to follow program procedures. A pplications are available in the program office.

## General Courses within the Nursing Domain

Courses in this section deal with the theory of nursing in practice, nursing as a profession, and the history and contemporary trends in nursing. These courses are open to students in any nursing sequence of study; they also are open to interested students, nurses or nonnurses, from other departments and divisions.

## Nursing Theory

ORLN 4005. Theories of nursing (3)
Faculty. Theoretical foundations of nursing. Critical anal ysis of theories that explain the nature of nursing practice.

ORLN 5000. Nursing science (3)
Faculty. Prerequisite: ORLN 4005. Examination of emerging issues in nursing research and healthcare. Relevance to theory development and health policy are emphasized.

## ORLN 5005. Interdisciplinary <br> theory in nursing (3)

Faculty. Prerequisites: ORLN 4005, ORLN 4050, or equival ent. Evaluation of utility of theories and models from related disciplines in posing research problems in nursing. Focus on strategies of concept anal ysis and theory derivation.

ORLN 6600. Colloquium in nursing theory (3)
Faculty. Prerequisites: 2 courses in nursing theory. Examination of a sel ected nursing theory or theory problem in depth. Course may be repeated for credit if different topics are covered.

ORLN 6909. Independent study in nursing theory (1-6)
Faculty. Permission required. Individual, guided learning experience in a selected nursing theory or theory problem. Topic agreed upon between student and faculty.

## Professional Nursing

ORLN 4001. Contemporary issues in nursing (3)
Faculty. Identification and anal ysis of current issues in nursing; development of appropriate background; formulation of personal stances on selected issues.

## ORLN 4004. Historical trends

 in nursing (3)Faculty. Consideration of the history of nursing and nursing education, and its influence on current developments in nursing.

ORLN 4050. Health problems and issues in society (3)
Faculty. Political and economic concepts influencing the delivery of healthcare services. Consideration of health issues facing the public and possible courses of action.

ORLN 5908. Independent study in professional nursing (1-6) Permission required. Individual, guided learning experience at the M aster's level in a selected aspect of professional nursing. Topic agreed upon between student and faculty.

ORLN 6501. Seminar in professional nursing (3)
Faculty. Prerequisites: 2 courses in nursing professional ism and/or history. Examination of selected professional nursing problems or domain in depth. Course may be repeated for credit if different topics are covered.

ORLN 6908. Independent study in professional nursing (1-6) Permission required. Individual, guided learning experience at the doctoral level in a selected aspect of professional nursing. Topic agreed upon between student and faculty.

## Nursing Research

ORLN 5040. Methods in nursing research (3)
Faculty. Prerequisites: ORLN 4005, ORLN 5000. Analysis of hypothetical generation, study designs and data collection methods in nursing research with emphasis on application to practice.

ORLN 5043. Nursing research development (3)
Faculty. Prerequisites: ORLN 4005, ORLN 5040, or equivalents. Philosophical foundations of empirical and naturalistic inquiry methods are examined with reference to developing a domain significant research problem. Empha sis given to clarification to study design within interdisciplinary knowledge relevant to nursing

## ORLN 5340. Practicum in archives and historical research

 (3)Faculty. Prerequisites: ORLN 5040 and ORLN 5043. An introduction to the theory and practice of archives administration and historical research. Course treats the fundamental s of these two interrel ated fields through lectures, readings, practical exercises, and a project involving: (1) arrangement and description of a manuscripts collection or (2) an oral history interview. Projects focus on the N ursing Archives in the Teachers College Milbank M emorial Library.

ORLN 5540. Seminar in master's thesis development (3) Faculty. Permission required. Group critique of thesis proposal s; analysis of theory and research design. Open only to students writing theses. This course may be repeated as often as necessary until the student is ready to present the thesis proposal for faculty approva in ORLN 5541. Continuous Autumn/Spring enrollment is required until the semester in which presentation is held.

## ORLN 5541. Master's thesis

 seminar in nursing (3)Faculty. Permission required. Pre requisite: ORLN 5540. Involves presentation of Master's thesis proposal for faculty approval.

## ORLN 5940. Master's advise-

 ment in nursing (3)Faculty. Permission required. Individual advisement on master's thesis. May be repeated for up to 6 points. Invol ves active work toward completion of a thesis proposal that has been accepted by faculty.

ORLN 6540. Dissertation design development (3)
Professor Rigol osi. Permission required. Prerequisites: ORLN 5043, ORLN 4005, ORLN 5005, statistics, and certification. Required of all doctoral candidates. G roup critique of dissertation proposals; focus on beginning to intermediate aspects of anal ysis of theory and research design. This course may be repeated as often as necessary until the student is ready for the departmental examination. OnceORLN 6540 is taken, continuous Autumn/Spring enrollment in the course is required until the semester during which the departmental examination is held.

ORLN 6541. Advanced dissertation design development (3) Professor Rigolosi. Permission required. Prerequisite: ORLN 6540 and certification. Focus on advanced aspects of research design and method.

ORLN 7500. Dissertation seminar in nursing (3)
Faculty. Permission required. Pre requisite: ORLN 6540 and certification. The departmental examina tion, involving presentation of dissertation proposal for faculty approval. This course is required of all certified doctoral candidates and may be taken only once.

## ORLN 7900. Directed Dissertation Research

Permission required. All doctoral students eligible for this course must register erch semester until a proposal hearing has occurred and a proposal has been approved.

## ORLN 8900. Dissertation

advisement in nursing (0)
Individual advisement on doctoral dissertation following completion of all course work. Fee equal to 3 points at current tuition rate for each term. For continuous requirements, see section in catal og on Continuous R egistration for Ed.D. degree.

ORLN 6940. Independent study in nursing research (1-6)
Permission required. Allows student to contract with individual faculty member for research related work in a defined area of study.

## Role Preparation

The rest of the nursing courses focus on combining cognate and nursing knowledge in synthesizing knowledge needed in role fulfillment

## General Courses in Role Preparation

ORLN 5013. Informatics in nursing (3)
Faculty. Focus on computerized management information systems, computer-based anal ysis of decision alternatives, assessing nursing care qual ity and cost-effectiveness, and other feedback mechanisms specific to the nursing organization. Special fee: $\$ 50$.

ORLN 5530. Seminar: Clinical teaching and evaluation (3)
Faculty. Inquiry in effective strate gies for teaching and evaluating students in the laboratory setting. A nal ysis of theory ad related research.

## ORLN 6014. Managing the

 socially responsible organization (3)Faculty. A nalysis of selected social, economic, and political megatrends that have or will continue to influence the direction of change in the healthcare industry. The process of analysis is intended to serve as a conceptual framework for the categorization of discrete trends affecting the management of nursing services and programs.

## ORLN 6522. Policy formation

 and governance in healthcare (3) Faculty. Policy formation and governance within nursing organizations and within the larger institution of which they are a part. Exploration of external and internal influences on policy formation in nursing.
## ORLN 6635. Colloquium in

 nursing education (3)Faculty. Prerequisite: determined by instructor based on topic selected. Examination of selected problems in nursing education practice and administration. Course may be repeated for credit if different topic covered.

ORLN 6930. Independent study in nursing education (1-6)
Permission required. Individual, guided learning experience at the doctoral level in a selected aspect of nursing education. Topic agreed upon between student and faculty.

## Nursing Organization

Executive Role
ORLN 4013. Fiscal management of the nursing organization (3) Faculty. Focus is the fiscal impact of providing nursing services. M anagement information systems, organizing human and material resources, and assessing the cost and quality of nursing services are studied. H ealth organization finance and nursing budgeting are included.

ORLN 5010. Administration of a nursing organization (3)
Faculty. Prerequisite: ORL 4054. Analysis and application of administrativetheory and structure to the nurse executive role. A nalysis of fit of models to the nursing administrative task. Application of M BO quantitative decision theory, and other models in the nursing administrative function.

ORLN 5011. Designing, planning, and monitoring the nursing care system (3)
Faculty. Prerequisite: ORL 4054. Corequisites or prerequisites: ORLN 5010, ORLN 4013, and ORLN 4005. Identification and anal ysis of organization and planning theories applicable to the nursing care system. D evel opment of design models based on analyses of current and predictable healthcare needs of society and the nursing market. A bility to assess architectural plans as they impact on nursing care delivery.

ORLN 5212. Fieldwork in executive nursing management (3-6)
Faculty. Permission required. Prerequisites: ORL4054, ORL 4011, ORLN 4012, ORLN 4013, ORLN 5010, ORLN 5011. Open only to Ed.M students. Observation, assessment, and evaluation of a preceptor nurse executive in a major nursing institution; concurrent assessment of the nursing organization. Specific objectives to
be developed by student, faculty, and preceptor. Special fee: $\$ 25$.

ORLN 5910. Independent study in nursing administration (1-6) Permission required. Individual guided learning experience at the master's level in a selected aspect of nursing administration. Topic agreed upon between student and faculty.

ORLN 6212. Advanced study in nursing administration (3-6) Faculty. Permission required. Open only to doctoral candidates. Internship in a nursing organization as a nurse executive; involves active assumption of the executive role, including responsibility for assigned projects and organizational responsi bilities. Specific objectives devel oped among student, faculty, and preceptor. Special fee: $\$ 25$.

## ORLN 6511. Innovations in

 nursing management (3)Faculty. Prerequisites: ORL 4054, ORLN 4011, ORLN 5010. Selected innovations in nursing, other health disciplines and management science are analyzed regarding underlying processes for translating new knowledge into successful practice. Special fee: \$10.

## ORLN 6514. Marketing nursing programs and services (3)

 Faculty. Prerequisites: ORL 4054, ORLN 5010. A nalysis of marketing concepts and principles of strategic planning as they relateto nurse executive role in health service industry.
## ORLN 6615. Colloquium in nursing administration (3)

 Faculty. Prerequisite: determined by instructor based on subject to be covered. Examination of selected problems in nursing administration for in-depth coverage. Course may be repeated for credit if different topic is taken.ORLN 6910. Independent study in nursing administration (1-6) Permission required. Individual guided learning experience at the doctoral level in a selected aspect of nursing administration. Topic agreed upon between student and faculty.

## Nursing Education Executive Role

ORLN 6521. Legal aspects of nursing education (3)
Faculty. Legal responsibilities of faculty and administration in an educational setting.

ORLN 6625. Colloquium in nursing education organization (3)

Faculty. Permission required. Pre requisite: determined by instructor based on topic covered. Examina tion of selected problems in nursing educational organization in depth. Course may be repeated for credit if different topic covered.

ORLN 6920. Independent study in nursing education organization (1-6)
Permission required. Individualized, guided learning experience in a selected aspect of nursing educational administration. Topic
agreed upon between student and faculty.

Social-Organizational
Psychology
Program Coordinator:
Professor Caryn Block
For Admissions Inquiries:
212-678-3710
Program Office: 212-678-3249

## Psychology: Organizational

D egree Offered:
M aster of Arts (M.A.)
(Code: TJA)
Social-Organizational
Psychology
D egrees Offered:
Doctor of Education (Ed.D.)
(Code: TJG)
Doctor of Philosophy (Ph.D.)
(Code: TJP)

## Special Application Requirements/Information:

## Master of Arts

Persons from a variety of academic backgrounds and work experiences may qualify for admission to the program. Primary consideration for admission is given to previous
academic record, work experience, and letters of reference. GRE scores are not required for admission into the M.A. program.

## Doctor of Education and Doctor of Philosophy

A pplicants are considered once a year for the fall semester only. Completed applications with supporting documentation must be recei ved no later than December 15. Late or incomplete applications will not be considered. The GRE and a writing sample are required. It is recommended, but not required, that applicants also take the GRE Advanced Examination in their undergraduate major. Full-time study is required for the first and second years. A pplicants are required to submit a copy of a recently completed paper on a topic of interest to them. This may be, but does not have to be, a paper submitted to satisfy course requirements.

Admission to the doctoral program is highly competitive. Preference is given to candidates who possess excellent verbal and quantitative skills and whose transcripts, references, admissions interview, and previous work experience suggest that they have the potential to make a significant contribution to theory and practice, policymaking, or research.

## Program D escription:

The Social-Organizational Psychology program is concerned with the various contexts (interpersonal, group, intergroup, and organizational) in which human behavior occurs; the ways in which groups of individuals interact and influence these contexts; and how these interactions can be understood, studied, and modified through theory, research, and various types of interventions.

The programs provide advanced training in the concepts, research methods, and applications of social and organizational psychology. They are designed to prepare students to engage in research, consultation, and teaching in educational, business, governmental, and community organizations. Emphasis is placed on the acquisition of basic concepts and methods applicable in diverse institutional and orga nizational contexts.

Courses in these programs are supplemented by other programs and departments at Teachers College and Columbia U niversity. W ith the help of a faculty advisor, students select courses in their area of specialization, with consideration given to their academic background, work experience, and career objectives.

Two degree programs are offered: one leading to the M.A. and one leading to the Ph.D.
An Ed.D. is also avail lable under certain circumstances. A terminal M.A. degree in Psychology: Organizational is awarded upon successful completion of 45 points and passing the comprehensive examination. Doctoral candidates in Social-Organiza tional Psychology may apply for award of the M.A. en passant upon successful completion of a minimum of 45 points and one of the three qualifying papers required for the doctorate. The Ph.D. degree is awarded upon completion of 84 points of planned and sequential study and a dissertation; and the Ed.D., upon completion of 90 points and a dissertation.

## A Certificate of Attendance in

 Conflict Resolution is al so offered to students in the M aster/D octorate programs who select Conflict Resolution as their area of concentration. Students interested in receiving the Certificate must complete a sequence of 5 courses and 1semester of internship. Student who opt for this concentration must formally apply to the International Center for Cooperation \& Conflict Resolution (ICCCR).

## Master of Arts

The M.A. program is designed to provide proficiency and advanced knowledge in the psychology of organizations. Qualified students are given the opportunity to develop their program in a manner consistent with their career interests, capacities, and background.
The program provides courses at Teachers College and other areas of the Columbia U niversity, particularly the G raduate School of Business. The program awards one general degree entitled "Psychology: Organizational," regardless of what specific classes are taken. Students may decide to pursue a broadly based program and therefore take a variety of courses, or they may concentrate their courses in a more specific area such as human resource devel opment, organizational change and consultation, or conflict resolution.

The program is designed to provide education leading to professional employment or to continuation of graduate work beyond the master's degree. Students are often employed in the positions typically found within the personnel or human resource function of middle or large-size organizations. Some specific examples include: training, career development and counseling, personne research, organizational development and consultation, employee relations, and human resource planning.

Students in the M.A. program who wish to extend their range of competencies to includeindividual and group counseling skills may, upon completion of the M.A., apply for admission
to the Ed.M. program in Psychological Counseling (see "Counseling Psychology"). The Ed.M. degree ordinarily requires an additional two semesters of preparation beyond the M.A. and includes supervised fieldwork and practice in individual and group counseling. Further information may be found in bulletins obtai nable from the coordinator of the Counseling Psychology programs at (212) 678-3257.

Graduates of the master's program may also apply for admission to the doctoral program in Social-Organizational Psychology. H owever, successful performance in the M.A. program does not in and of itself guarantee admission. Students who apply become part of the applicant pool for that year and their qualifications are evaluated with equal standing along with the other applicants.

## Doctor of Education and Doctor of Philosophy

The program is based on the assumption that systematic inquiry constitutes the core of the educational process. Supervised and independent research is a major component of the student's work throughout the program. The student's study ordinarily begins with emphasis on fundamental concepts and research methods, proceeds to more special ized courses and independent research, and concludes with a major inquiry resulting in a doctoral dissertation. The dissertation is viewed not as the end product of a student's work in the program, but merely as another piece of research in a series that begins early in the student's career and is continued after he or she has earned the doctorate.

## D egree Requirements:

$N$ ote the basic research requirements for all students in the department.

## M aster of Arts

The program curriculum comprises of major courses consisting of five required core courses, four required advanced core courses, other elective ORLJ courses, and 3 nonORLJ courses taken for at least 2 points each in related fields. These courses must betaken within Teachers College (see Teachers College Catalog, "General Requirements for the M .A. Degree").

Courses available at the Graduate School of Business, Engineering and A pplied Sciences, Social W ork, and in other areas of the Columbia U niversity Graduate programs may be taken. These related courses count toward the elective course work within organizational psychology, not toward the 3 non-ORLJ courses that must be taken within Teachers College. Students should consult with an advisor to select courses to satisfy the latter requirement. An effort is made to assist students in developing a program of study that will best meet their personal career interests and objectives. Certain required courses may be wai ved or substituted with others depending on the person's undergraduate background, graduate study and work experience.

Within the program, persons may elect to concentrate in any one of three areas:

- human resource development
- organizational change and consultation
- conflict resolution.

H owever, students are not required to choose a concentration. Thus, if a student desires a broadly based and general degree in organizational psychology, courses may then be selected, with the assistance of an advisor, across all three areas of concentration.

C ore Required Courses: Level 1 R egardless of concentration, the following five courses are required for all candidates, unless waived by the program adviser due to the person's background:

- ORLJ 4002, Functions of Organizations (3)
- ORLJ 4005, Organizational Psychology (3)
- ORLJ 4009, Understanding Behavioral Research (3)
- ORLJ 5003, Human R esource M anagement (3)
- HUDM 4122, Probability and Statistical Inference (3)

A dvanced C ore Required Courses:
Leved 2

- ORL 5362, Group Dynamics (3)
- ORLJ 5014, Organizational Dynamics (3)
- ORLJ 6040, Fundamentals of cooperation, conflict resolution and mediation in different institutional contexts(3) Plus one of the following applications courses
- ORLJ 5012, Internship in Organizational Psychology (3)
- ORLJ 5340, Basic Practicum in Conflict Resolution and M ediation Skills (3)
- ORLJ 6343, Practicum in Change and Consultation in Organizations (3)

Organizational P sychology: H uman R esource D evelopment: Four recommended courses for this area of concentration:

- ORLJ 5169, Assessing and Facilitating Career Development (2-3)
- ORLJ 5106, Psychological Aspects of Organizations (3)
- ORLD 5055, Staff Development and Training (3)
- CCPJ 5062, Career Counseling and Development (2-3)

Organizational Psychology: Organizational Change and C onsultation:
Four recommended courses for this area of concentration:

- ORLJ 5014, Organizational Dynamics and Theory (3)
- ORLJ 5020, Preparation for Coaching (3)
- ORLJ 5106, Psychological A spects of Organizations (3)
- ORLJ 6343, Practicum in Change and Consultation in Organizations (4)

Organizational Psychology:
C onflict Resol ution
( N ote: Students interested in receiving a Certificate of Attendance in Conflict Resolution must complete a sequence of 5 courses and 1 semester of internship.)
Four recommended courses for this area of concentration:

- ORLJ 5340, Basic Practicum in Conflict Resolution and Mediation Skills (3)
- ORLJ 6040, Fundamental s of Cooperation, Conflict Resolution and Mediation in Different Institutional Contexts (3)
- ORLJ 6350, Advanced Practicum in Conflict ResoIution and M ediation, Section I (3)
- ORLJ 6350, Advanced Practicum in Conflict ResoIution and M ediation, Section II: Designing Conflict M anagement Systems (3)

Suggested Organizational P sychol ogy Electives:
The following courses are suggested electives within ORLJ. Students may choose from among these electives and other rel evant el ectives that are not listed here.

- ORLJ 5005, Leadership and Supervision (3)
- ORLJ 5012, Organizational Internship (2-3)
- ORLJ 5013, N egotiations in Organizations (3)
- OR LJ 5015, Executive Selection and Development (3)
- ORLJ 5016, Special Topics in Organizational Psychology:
Advanced Functions in Organizations (3),
M otivation and Reward Systems (3)
- ORLJ 5018, Using Survey Research in Organizations (2-3)
- ORLJ 5019, Multi-Rater Feedback (2-3)

Suggested Outside P sychol ogy
Organizational Electives:
Please consult with an academic advisor.

- ORL 5000, M ethods of Inquiry: Ethnography and Participant Observation (3)
- ORL 5362, Group Dynamics (4)
- ORL 6500, Qualitative Research M ethods on Orgs: Design and Data Collection
- ORL 6501, Qualitative Research M ethods on Orgs: Data A nal ysis \& Reporting
- C\&T 4335, M odels of Teaching Practicum: Cooperative Learning (1)
- CCPJ 4064, Principles and M ethods of Psychological Counseling (3)
- CCPJ 4065, Career D evelopment of W omen (2-3)
- CCPJ 5020, Racism and Racial Identity in Psychology and Education (3)
- CCPJ 5062, Career Counseling and Development (2-3)
- CCPJ 5361, Preparation for Individual Counseling and Interviewing (3)
- CCPJ 5362, Group Dynamics: Systems Perspective (4)
- CCPX 4030, Psychology of Adjustment (3)
- CCPX 5034, Developmental Psychopathology (3)
- H BSS 4120, Topics H eal th Education: Stress (2-3)
- H BSS 4120, Topics H eal th Education: H ealth \& Business (2-3)
- HBSS 4140, Developing W orkplace H ealth Promotion Programs (3)
- HUDF 5020, M ethods of Social Research: Survey M ethods (3)
- HUDK 5034, Theories of H uman Cognition and Learning (3)
- HUDK 5198, Psychology of Instructional Systems Designs (3)
- HUDM 4050, Introduction to M easurement (2-3)
- HUDM 4122, Probability and Statistical Inferences (3)
- HUDM 5021, M ethods of Empirical Research (3)
- HUDM 5055, Evaluations of Institutions, Programs and Curricula (3)
- HUDM 5056, Evaluations of Institutions, Programs and Curricula (3)
- HUDM 5058, Choice and Decision M aking (3)
- HUDM 5059, Psychological M easurement (3)
- M STU 4010, The N ature of Communication (2-3)
- M STU 4031, Programming I (4)
- MSTU 4052, Computers, Problem Solving and Cooperative Learning (Parts I \& II) (3)
- MSTU 4083, Instructional Design of Educational Technology (3)
- M STU 4085, N ew Technologies for Learning (2-3)
- M STU 5510, Topic Seminar: Technology and School Change (3)
- ORLA 4011, Behavior in Organizations (3)
- ORLA 4046, School Finance: Policy/Practice (3)
- ORLA 5017, Groups and Interpersonal Behaviors (2-6)
- ORLA 5018, U nderstanding authority and exercising leadership (3)
- ORLA 5530, Action Research in Organizational Behavior (3)
- ORLD 4051, How Adults Learn (3)
- ORLD 4052, Program D evel opment: A ssessing Learning N eeds and Evaluating Outcomes (3)
- ORLD 4053, Facilitating Adult Learning (3)
- ORLD 5055, Staff Development and Training (Partsl \& II) (3)
- ORLD 5056, Adult Education: Social Action (3)
- ORLD 5057, Adult Learning and Education: Theory and Practice (3)
- ORLD 5061, Advanced Staff Development and Training (3)

Internship
W hile not a prerequisite for graduation, an internship may be hel pful for proper job placement. The purpose of the internship is to provide students with an opportunity to gain practical experience relevant to their interests, and to apply the principles of organizational psychology theories to real-world situations. Students who are interested in doing an internship should consult with an academic advisor.

Comprehensive Examination A comprehensive examination is taken after 24 points of graduate study have been completed, or later at the discretion of the candidate and the faculty adviser. The exam covers all of the maj or topic areas in organizational psychology.

## Doctor of Philosophy

Students are required to take as many as 84 course-points for the Ph.D. (Occasi onally, students may transfer credits up to a maximum of 30 points, from previous graduate training at other institutions. Transferring the maximum is unusual, however, since courses transferred must be equival ent to courses that are required in the Ph.D. program.)

During their graduate careers, students are expected to participate in introductory and advanced seminars in psychology, social psychology, organizational psychology, and statistics.

In addition, according to their individual interests, students may take courses in any of the schools and graduate facilities of Columbia University.

Research Training
A substantial portion of the training in this program is based on the assumption that most of an organizational psychologist's professional skills are best learned by doing. H ence, from the first year onward, all students routinely participate in the design, execution, data analysis, and writing phases of both laboratory and field research. These experiences are obtained as students join with other students and faculty to work on particular research projects. (Current research interests are represented in the above listing of seminars.) H owever, in many of the programs' courses, students are expected to conduct smallscal e inquiries. This commitment to research training is a particularly important part of the program and consumes a major portion of a student's time.

A pplied A spects of the P rogram Although most of the research being conducted in the SocialOrganizational Psychology Iaboratories is concerned with basic theoretical issues in social and organizational psychology, there is considerable emphasis placed on short-term, applied research designed to give answers to immediate social concerns. School boards, hospitals, welfare agencies, housing agencies, universities, community mental health centers, and other non-profit organizations are as much in need of descriptive and diagnostic studies as areindustrial and business firms. Students in social-organizational psychology are trained to do various kinds of applied research and consultation with a variety of organizations.

To meet the increasing demand for psychologists to function as consultants to social systems, students are provided with other applied opportunities to acquire skills in human relations training and organizational consulting. In addition to seminars and practice, the Social-Organizational Psychology Program makes available a variety of supervised field experiences for students to develop these skills.

The course requirements are divided into five major sections: Research and Statistics (7 courses), Theory in SocialOrganizational Psychology (6 courses), Practice in SocialOrganizational Psychology (4 courses), Integrative Experiences (8 courses), and General Psychology Course Requirements (3 courses). Students should follow the following paradigm:

Research and Statistics
( 7 courses required)

- ORLJ 5040, Research M ethods in Social Organizational Psychology I (3)
- OR LJ 5041, Research M ethods in Social Organizational Psychology II (3)
- HUDM 4122, Probability and Statistical Inference (3) required, if necessary
- HUDM 5122, Applied Regression Anal ysis (3)
- HUDM 5123, Experimental Design (3)
- HUDM 6122, Multivariate Analysis I (3)

Remaining courses to select
from include:

- HUDM 6123, Multivariate A nal ysis II (3)
- HUDM 6030, Multilevel and longitudinal data analyses (3)
- ORL 5000, Ethnography and Participant Observation (3)

Theory in Social-Organizational
P sychol ogy ( 6 courses required)

- OR LJ 5540, Proseminar in Social Psychology (3)
- ORLJ 5541, Proseminar in Organizational Psychology (3)
- ORLJ 5014, Organizational Dynamics and Theory (3)

Remaining courses to select from include:

- ORLJ 5005, Leadership and Supervision (3)
- ORLJ 5017, Small Group Intervention (3)
- ORLJ 5106, Levels of A nal ysis in Organizational Issues (3)
- ORLJ 6040, Fundamental on Cooperation and Conflict Resolution (3)
- ORLJ 6045, Organizational Demography (3)
- ORL 5013, Psychological A nthropology (3)

Practice in Social-Organizational
P sychology (4 courses required)

- ORLJ 4137, Group Dynamics (3)
- ORLJ 6343, Practicum in Change and Consultation in Organizations (3)

Remaining courses to select from include:

- ORLJ 5340, Practicum in Conflict Resolution (3)
- ORLJ 6350, Advanced Practicum in Conflict ResoIution (3)
- ORLJ 6244, Fieldwork in Organizational Consulting (3)
- ORLJ 5020 Preparation for Coaching (3)
- ORLJ 5018, M ulti-rater Feedback (3)
- ORLJ 5019, D ata-based Interventions for Organizational Change (3)
- HUDK 5198, Psychology of Instructional Systems Design (3)
- ORLD 5055, Staff Development and Training (3)
- ORLD 5061, Advanced Staff Development and Training (3)

Integrative Experiences
(8 courses required)

- ORLJ 6342-6352, W orkgroups (3)
- ORLJ 6349, Process consultation (3)
- ORLJ 6640, Colloquium in Social-Organizational Psychology (0)

General Psychology Course Requirements ( 3 courses required) (please consult an academic advisor for requirements)

- CCPJ 5020, Racial Identity Theory
- G 4003, Personal ity
- W alter M ischel's Personality Course
- Adult Learning Theory
- Test Construction

Certification Examination in Social-Organizational Psychology Students must pass an examination administered by the Office of Doctoral Studies in socialorganizational psychology. The student writes on a topic submitted by his or her advisor to the D octoral Studies Office.

TheD issertation The doctoral dissertation is a report of independently conducted research. In formulating and conducting this research, the student has available as consultants and advisors two or three members of the faculty.

N on-D egree ProgramCertificate of A ttendance in C onflict Resolution
In addition to the degree programs previously described, the Social-Organizational Psychology Program through the International Center for Cooperation and Conflict Resolution (ICCCR) offers professional devel opment opportunities in the field of Conflict Resolution to both first-time students and to alumni interested in continuing their graduate education.

Conflict Resolution is a concentration of courses aimed at developing core competencies for reflective scholars and/or
practitioners. It is offered both as a track in the M aster of A rts and D octoral Programs in Social-Organizational Psychology and, in whole or in part, as a complement to the studies of students throughout the College, i.e. students may take conflict resolution courses as valid electives in their respective programs. By completing a sequence of 5 courses and 1 semester of internship and formally applying to the Conflict Resolution Center, students may receive a Certificate of Attendance in Conflict Resolution. The courses are offered by the ICCCR whose mission is to help individuals, schools, communities, businesses and governments better understand the nature of conflict and how to achieve its constructive resolution.

The Conflict Resolution concentration is available to both degree and non-degree students for credit or noncredit. C ontact: P rofessor Peter Coleman (212) 678-3402.

## Courses:

Courses at the 4000-level do not require permission of the instructor and are open to non-majors as well as majors. Many 5000-level offerings are al so open to nonmajors with appropriate backgrounds; 6000-level courses are usually limited to majors with advanced standing in the program. Seel listings below for prerequisites and limitations on enrollment. In addition to the courses listed below, students should consult the offerings of other psychology programs at Teachers College, many of which are required or recommended in the various program guides which are obtai nable from the respective offices.

## Social-Organizational Psychology

ORLJ 4002. Functions of organizations (3)
Faculty. A survey of the primary functions and operations of organizations: accounting, finance, marketing, strategic planning, management information systems, and the relation of these functions to human resource management.

ORLJ 4005. Organizational psychology (3)
Professors Block and Ostroff. Introduction to theories and research that underlie the field of organizational psychology. Implications and applications in various organizational contexts are considered.

## ORLJ 4009. U nderstanding

behavioral research (3)
Professor Perry. Overview of alternative methods of behavioral research and their relative strengths and limitations. A pplication of methodological principles in order to read and evaluate social science research and learn how to begin to conduct research.

## ORLJ 5003. Human resource management (3)

Professor W estaby. Current and emerging emphases in the management of human resources in organizations.

ORLJ 5005. Leadership (3) Professor Burke. M ajor psychological and other interdisciplinary approaches to the study of leadership. Critical analysis of relevant theories, research, and practical applications.

ORLJ 5012, 5016, 5020. Special topics in organizational psychology
Faculty. N ew and emerging developments, practices, and concerns in thefield of social-organizational psychology are examined and evaluated. Topics are announced in the schedules distributed each semester.

## ORLJ 5012. Organizational internship (2-3) Faculty.

ORLJ 5013. N egotiations in Organizations (3)
Faculty. Devel ops skills for negotiating in organizational contexts through instruction and readings
in negotiation theory and research and participation in negotiation simulations

## ORLJ 5014. Organizational

dynamics and theory (3)
Professors Burke and N oumair. Prerequisite: ORLJ 4005 or equivalent. Study of organizations as total systems with consideration of different types of organizations. Emphasis on the impact of such dimensions as mission, strategy, structure, culture, systems, and leadership on individual and organizational performance and vice versa. Organizational change is also addressed.

## ORLJ 5015. Executive selection

 and management (2-3)Faculty. Offered Summer only. Seminar to explore issues in and methods for executive selection and development.

ORLJ 5016. Advanced functions of organizations (2-3)
Faculty. An advanced survey of the primary functions and operations of organizations, and the relation of these functions to human resource management.

## ORLJ 5016. Motivation and

reward systems (2-3)
Faculty. This seminar course provides an overview of the role of motivation and organization development in the design and implementation of strategic pay systems. Issues of organizational change, job analysis, job descriptions, sal ary surveys, job evaluation, work motivation, job attitudes, organizational citizenship behavior, executive compensation, incentive compensation, team-based pay, and expatriate compensation.

## ORLJ 5020. Preparation for

 coaching (3)Professor R askin. The purpose of this course is to introduce students to the basic structure and techniques of interviewing and listening. The course is largely experiential and is intended for students who have little or no background or experiencein counseling or coaching.

ORLJ 5017. Small group intervention: Theory and method (2-3)
Professor Noumair. Permission required. Prerequisite: ORL 5362, CCPJ 5362, or with permission of the instructor. This course covers relevant theory and research that underlies effective group interventions by a trainer or consultant. M ethods are explored that enhance participants' learning in a training group and facilitate team building and teamwork. Intergroup dynamics are al so covered.

ORLJ 5018. U sing survey research in organizational consulting (3)
Professor W estaby. Prerequisite: ORLJ 4009. This course illustrates how to conduct survey research for organizational change initiatives. The following topics are covered: entering into survey research consulting, selecting concepts, conducting focus groups, survey construction and administration, data analysis, identifying needs, survey feedback techniques, and final reports. Students develop a survey-based project from initial conceptualization to final report presentation.

ORLJ 5019. Multirater feedback (3)

Drs. Church and W aclawski. Permission required. This course focuses on the theory, research, and application of three primary data driven interventions for I/O psychology and OD-related interventions and initiatives: large scale assessment surveys; multi-rater (a.k.a. 360 degree) feedback methods; and interviews and focus groups. Course format combines lecture, case study, and group project work.

ORLJ 5040-ORLJ 5041. Research methods in social psychology (3)
Professor Block (Fall) and Professor W estaby (Spring).. O pen only to qual ified doctoral students in the behavioral or social sciences. Representative approaches to practice in the design, conduct, and analysis of research. Autumn: Experimental and quasi-experimental design. Spring: Field and survey methods; policy and evaluation research.

ORLJ 5106. Psychological aspects of organizations (2-3) Faculty. Prerequisite: ORLJ 4005 Examines contemporary theory, research and practice in organizational behavior. Topics include: organizational entry, socialization, motivation, reward systems, group and individual decision-making, conflict resolution, stereotyping and discrimination.

## ORLJ 5147. Conflict resolution

 in early childhood settings (3) Dr. Sandy. This course introduces a developmentally appropriate model of working with conflict resolution in early childhood classrooms. It features demonstrations and practice in the use of circle time activities, puppets, role-playing and modeling to promote social-emotional and problemsolving skills. Strategies for classroom management and parent involvement are highlighted.ORLJ 5340. Basic practicum in conflict resolution (3)
ICCCR Trainers. Enrollment limited. Students will be trained in the basic skills of collaborative negotiation and mediation and will have supervised practice in these skills.

## ORL 5362. Group dynamics: A

 systems perspective (3-4) Professor Noumair and Dr. Brazitis. Permission required. Prerequisite: ORLJ 4005. Enrollment limited. In addition to the regular course meeting times, there are two additional special weekend workshops, times/dates arranged each semester. The course explores social processes in groups and their impact on individual behavior. In addition to a series of lectures/discussions, students are required to participate as members of an expe riential group designed to provide opportunities for learning about group dynamics through an examination of power, authority, leadership, intergroup and interpersonal processes. Special fee: \$120.ORLJ 5540-ORLJ 5541. Proseminar in social and organizational psychology (3)
Professor Coleman (Fall) and Professor Block (Spring). Open only to qualified doctoral students in the behavioral or social sciences. Intensive readings and analysis of theories and research in social and organizational psychology and social structure.

ORLJ 6040. Fundamentals of cooperation, conflict resolution and mediation in different institutional contexts (3)
Professor Coleman. Topics such as cooperation and competition, trust and suspicion, bargaining and negotiation as they relate to conflict resolution in various contexts.

## ORLJ 6045. Demography in Organizations (3)

Professor Perry. This course seeks to understand the role that demography plays in organizations. The main focus in this course is on demographic variables such as race, gender, and disability. The course will examine various theoretical frameworks that help us to understand how demographic variables influence organizational behavior and decisions.

ORLJ 6244. Fieldwork in organization consulting (3)
Professor Burke. Permission required. Prerequisite: ORLJ 6343. Background in organization devel opment required. Students engage in consultation with a client that emphasizes data gathering, organization diagnosis and feedback.

## ORLJ 6343. Practicum in

 change and consultation in organizations (4)Professor Noumair. Permission required. Prerequisites: ORL 5362 or CCPJ 5362. Enrollment limited. Open to doctoral candidates and others who have a strong background in social science, organizational behavior, administration, psychology, or business. Planned change in organizations. Offers the opportunity to study and experience anticipated consultant roles during the entry, diagnostic, and intervention phases of efforts to effect change. Special Fee \$75.

ORLJ 6344-ORLJ 6349.
Research practicum in socialorganizational psychology Permission required. Limited to doctoral students. Topics are announced in the preliminary and final course schedules distributed each semester.

## - ORLJ 6342. Multi-level <br> research in organizations

(2-3)
Professor Ostroff.

- ORLJ 6344. Conflict, justice, and cooperation (2-3) Professor Coleman.
- ORLJ 6345. Diversity and discrimination in organizations (2-3)
Professor Perry.
- ORLJ 6346. Organizational
attitudes, job search, and career development (2-3)
Professor W estaby.
- ORLJ 6347. Motivational
issues in organizations (2-3) Professor Block.
- ORLJ 6348. Psychology of managerial and leadership competence and multirater feedback (2-3)
Professor Burke
- ORLJ 6349. Group/organizational dynamics and diversity issues in organizations (2-3)
Professor N oumair.
ORLJ 6350. Section I: Advanced practicum in conflict resolution (3)

ICCCR Staff. Prerequisites: ORLJ 5340. Limited enrollment. Students will engage in negotiation and mediation involving persons from different cultural contexts as well as with "difficult" cases.

ORLJ 6350. Section II:
Advanced practicum in conflict resolution: D esigning conflict management systems (3)
ICCCR Staff. Prerequisite: ORLJ 5340 and ORLJ 6040 or ORLJ 6350 Section 1. Limited enrollment. This workshop presents a practical approach that uniquely integrates organizational development, alternative dispute resolution, and dispute systems design principles into a working model to help assess conflict and evaluate processes within organizations.

ORLJ 6542. Directed research in social-organizational psychology (1-6)
Faculty. Permission required.
ORLJ 6640. Social-organizational psychology colloquium (0-1)
Faculty. Permission required. For doctoral candidates only. Discussion of ongoing projects involving research and consultation.

ORLJ 7501. Dissertation seminar (1-3)
Faculty. Permission required. Development of doctoral dissertations and presentation of plans for approval. Registration limited to two terms. For requirements, see section on Continuous Registration for Ed.D./Ph.D. degrees.

Independent Study and Research
Students may register for intensive individual study of a topic of special interest. Registration in independent study is by permission of the instructor under whose guidance the work will be undertaken. Credit may range from 1 to 3 points each term except for ORLJ 8900 (Dissertation Advisement) and registration is not limited to one term. H ours for individual conferences are to be arranged.

ORLJ 4901. Research and independent study in social-organizational psychology
(1-3 each course)
ORLJ 6901. Advanced research and independent study in social-organizational psychology (1-3 each course)

ORLJ 8900. Dissertation advisement in social-organizational psychology ( 0 each course) Fee to equal 3 points at current tuition rate for each term. For requirements, see section on Continuous R egistration for Ed.D./Ph.D. degrees.

## Conflict Resolution

Conflict Resolution is a concentration of courses aimed at devel oping core competencies for reflective schol ars/practitioners. It is offered both as a track in the M aster of Arts and Doctoral Programs in SocialOrganizational Psychology and, in whole or in part, as a complement to the studies of students throughout the College. The courses are offered by the ICCCR, the International Center for Cooperation and Conflict Resolution whose mission is to help individuals, schools, communities, businesses and governments better understand the nature of conflict and how to achieve its constructive resolution.

The Conflict Resolution concentration is also avail able to non-matriculated students for credit or noncredit through the Center for Educational Outreach and Innovation (CEO\&I). Students interested in receiving the ICCCR Certificate of Attendance in Conflict Resolution will have to completea sequence of five courses and one semester of internship.

The sequence of courses leading to the Certificate of Attendance in Conflict Resolution is:

- ORLJ 5340: Basic practicum in conflict resolution and mediation
- ORLJ 5340, 004: Conflict resolution: issues in power, rank, and privilege (elective)
- ORLJ 6040: Fundamentals of cooperation, conflict resolution, and mediation in different institutional contexts
- ORLJ 6350, 001: Advanced practicum in conflict resolution, Section I
- ORLJ 6350, 002: Advanced practicum in conflict resolution, Section II-Designing conflict management systems

For the internships, there are currently 5 possibilities (ORLJ 5012):

- Community mediation
- Early childhood conflict resol ution
- School-based conflict resolution training
- Conflict resolution in higher education

For course descriptions, see the programs in Social-Organizational Psychology.
ORLJ 5012: Organizational internship
ORLJ 5013: Negotiating in organizations
ORLJ 5340: Basic practicum in conflict resolution and mediation
ORLJ 6019: Labor management in education
ORLJ 6040: Fundamentals of cooperation, conflict resolution, and mediation in different institutional contexts
ORLJ 6350, 001: Advanced practicum in conflict resolution, Section I
ORLJ 6350, 002: Advanced practicum in conflict resolution, Section II-Designing conflict management systems ORLJ 5147: Conflict resolution in early childhood settings ORLJ 5340, 004: Issues in power, rank, and privilege

For more information regarding the Certificate of Attendance, please contact the ICCCR Office at (212) 6783402 or (212) 678-3289.

## Educational Policy

Faculty Coordinators:
Gary N atriello (H uman
Development)
Craig Richards (Organization
and Leadership)
The concentration in Educational Policy is open to students from all departments who wish to complement their disciplinary studies with an examination of issues in educa tional policy. Through course work, seminars and internship opportunities, Teachers College students can examine the politics of social and educational change, how policies should be evaluated, and how climates of support for policies are created. Policy concentration students are required to take 12 points in specific policy related courses:

- HUDF 4000, Education and public policy
- HUDF 5645, Policy seminar ।
- HUDF 5646, Policy seminar II
- HUDF 5430, Internship (or equivalent)

Policy students al so select a 3 point methods course in consultation with their advisor.

In addition to the specific concentration requirements listed above, students are al so strongly encouraged to take additional courses in policy specific to their degree program. The following courses are examples of the many pol-icy-rel ated classes avail able to Teachers Col lege students. For a more comprehensive list, consult the separate departmental course listings.

ORLA 4040, Education policy decision making
ORLA 4046, School finance: policy and practice

ORLA 4086, Law and educational institutions: issues of authority, religion, free speech, and safety
ORLA 5016, Law and educational institutions: equity issues
ORLA 5880, School Law
Institute
ORLD 6551, Higher education and the law
HBSE 6004, Public policy/administration-special education
H U DF 5042, Urban politics and education
HUDK 5036, Child and adolescent development and social policy
HBSS 4112, Social policy and prevention
C\&T 4651, Young children and social policy: issues and problems
C\&T 5074, Curriculum and teaching policy

Plemse consult the departmental listings for compl ete course descriptions.

## Family and Community Education

Teachers College has long recognized that the family is a fundamental educational institution. Those concerned with education can benefit from considering how education proceeds within families, and how families are linked with other educational institutions in the community schools, daycare centers, health-care and social service agencies, the media, libraries and museums, and religious institutions. Values, attitudes, norms, self-concepts, and expectations are formed, sustained, and modified in families as different generations teach and learn from each other through observation, participation, and instruction.

Families also mediate and thereby transform the influences of other educational institutions on their members. M oreover, since education takes place in a broad range of institutional and interpersonal settings, it is al so important to understand how individuals engage in, move through, and combine these various educational experiences over a lifetime. An understanding of families is significant for educational policy, practice, and research. Efforts to improve education often entail attempts to change families or their connections with other institutions. Families are subject to numerous sources of change.

The household composition, interpersonal relationships, and kin networks of the same family may change significantly from one stage of the life-cycle to another and in connection with geographic and social mobility. During periods of rapid demographic, economic, and technological change, it becomes especially important for educators to examine families, and to consider such issues as how new forms of transportation, television, and other types of communication and computer-based technology are modifying information processing in family settings.

Given the complex connections of families with other institutions in the community, the variety of forms of the family in modern societies, and the numerous teaching and learning activities that take place in family settings, insights from a wide range of schol arly disciplines can be utilized in attempting to understand and help shape the educational role of modern families. Teachers College has a distinguished tradition of study and research on families and communities as educators.

The Elbenwood Center for the Study of the Family as Educator (Professor HopeJ ensen Leichter, Director), The Center for Infants and Parents (Dr. Susan Recchia, Director), the Center for Young Children and Families (Professor J eanne Brooks-Gunn, Director), and several departments within the college offer opportunities for study and research related to families. Additional opportunities for the interdisciplinary study of families and communities as educators are under devel opment.

Students interested in including elective studies in Family and Community Education in their degree programs should talk with one of the faculty members listed below: Professor H opeJ ensen Leichter Professor H erve Varenne Professor J eanne Brooks-Gunn Professor Victoria J. M arsick Professor Celia Genishi Professor Jo A nne K Ieifgen Professor Barbara C. W allace

## Law and Educational Institutions

Advisor: Professor Jay P. H eubert

Law and lawyers are not merely nuisances to which educators, policy makers, parents, and communities can react passively or defensively. In schools and postsecondary institutions, public and private, legal considerations play a central role in questions of educational governance, finance, curriculum, instruction, admission, staffing, accountability, equality of opportunity, and school reform. It is therefore important for administrators, policy makers, teachers, parents, and communities to understand law in its many forms- constitutional provisions, statutes, regulations, policies, court decisions, administrative regula-
tions, and collective bargaining agreements, among others.
There is al so a growing need for effective collaboration between educators, lawyers, parents, and researchers; such collaboration not only helps avoid costly and divisive litigation but provides a powerful tool that can be used to advance important educational objectives.

A concentration in education I aw can be devel oped in connection with degree programs in most departments. Opportunities in education and law are not limited to the courses below.

ORLA 4086 and ORLA 5016 are intended to cover basic legal background for effective performance in public or private K-12 schools.

## ORLA 4086. Law and educational institutions: issues of authority, religion, free speech, and safety (3)

Professor H eubert. For schools and colleges: church-state-education; race-state-education; academic freedom; equality of educational opportunity; curricular rules; conduct rules; punishments; due process for students; negligence; defamation; records. This course and ORLA 5087 or ORLA 5016 form a two-semester sequence. Enrollment is for one or both (in either order but not concurrent).

## ORLA 5087. Law and educational institutions: college operation; private school operation

 (2-3)Faculty. Legal framework; powers, duties, procedures of governing boards and administrators; acquisition and use of money and property; contracts with students, employees, suppliers; staff rights (employment, working conditions, separation, collective negotiations). This course and ORLA 4086 form a two-semester sequence. Enrollment is for one or both (in either order but not concurrent). M aterials fee: $\$ 15$.

## ORLA 5016. Law and educational institutions: equity issues

 (3)Professor H eubert. This course focuses on issues of equal educational opportunity. Topics include desegregation; bilingual education and other services for English-language learners; harassment based on race, sex, and sexual orientation; employment discrimination; school finance reform; special education; HIV/AIDS; affirmative action; and issues of race and gender in testing, curriculum, and instruction.

## ORLD 6551. Higher education

and the law (3)
Professor H eubert and Mr. Sun. This seminar focuses on public regulation of postsecondary education (student records, sunshine laws, and state action); free speech rights of faculty and students; issues of contract law; gender equity; disability issues; employment discrimination and harassment; and affirmative action.

For information about programs coordinated with the School of Law, contact Professor H eubert. Programs are available for students admitted to either Teachers College or the School of Law.

## Urban Education

Through its various departments and programs, Teachers College, located in the heart of one of the world's largest cities, has a wide range of opportunities for instruction, research, and service in the field of urban education. Individual programs of study can be arranged for students whose major interest is in this area-teaching, bilingual education, counseling, administration, supervision, special education, research, teacher education, and other professional roles. Special attention is given to prospective teachers and other school personnel; to persons with leadership responsibility for
educational planning and program devel opment; and to individuals interested in research and experimentation.

Most departments and programs at Teachers College give special attention to students primarily concerned with education in the urban setting. In addition to courses which focus primarily on urban education, many courses include attention to education in urban settings.

For study possibilities, students should contact the coordinator of the program in which their professional interests lie. The programs in Curriculum and Teaching offer Ed.M and Ed.D. programs in which a concentration in U rban Education is offered for those primarily concerned with instruction, whether in schools or in other educational environments.

Teachers College is al so involved in educational program development and evaluation of urban programs. This research-service function is carried on with selected New York City schools and with other school systems in metropolitan areas.

Of particular interest in this regard is the Institute for Urban and M inority Education, which gives special emphasis to research, development, training and service programs designed to improve education in the nation's cities and for minority group members. Institute staff and associates investigate a wide range of factors that influence educational success and failure. The Institute includes a clearinghouse and specialized library on urban education and human diversity. It provides technical assistance to schools. It provides opportunities for students and faculty to engage in research and development activities rel ated to its scope. Some op portunities are also available for supervised and independent study jointly arranged between the Institute and appropriate academic departments.

For further information, address inquiries to the department chair of the area of specialization or to, Director of the Institute for U rban and M inority Education, Box 75, Teachers College; (212) 678-3780.

IN D 4033. Problems and programs in urban education (2-3) K nowledge, insights, and understandings emerging from theory, research, and practice, concerning urban education.

Interdisciplinary Studies in Education

Program Coordinator: W illiam J. Baldwin, A ssociate Dean

D egrees offered: M aster of Arts (M.A.), M aster of Education (Ed.M.), D octor of Education (Ed.D.)

This program is designed for students who have interests in an area of specialization not offered at the College, but for which a coherent and integrated program may be developed through the selection of a combination of current course offerings from several different disciplines.

Admission to the program is granted only if the designed program of study cannot be pursued through one of the established areas of specialization, many of which have a sufficient degree of flexibility to permit an interdisciplinary approach to a field of study. All professors are eligible to serve as advisors and the applicant is required to seek the support of two or three advisors from the relevant disciplines prior to admission. For the M.A. or Ed.M . degree a comprehensive examination, essay, or special integrative project is required.

Contact the Admission Office (212-678-3710) for a more detailed description of the program and procedures for applying.

## Administrative Information

298 Degree Requirements
301 Registration, Expenses and General Regulations plus Touchtone Services

309 Residence Halls Information
312 Admissions Application Information
315 Student Aid Information
Forms:
321 Application for Admission
323 Letter of Reference
325 Residence Hall Application
327 Course Index
342 Faculty Index
343 General Index
345 Correspondence Directory
346 Columbia University Campus M ap

## General Requirements

The minimum requirements for degrees as established by the College and U niversity are given below. Students must consult the appropriate departmental brochures for specific program requirements governing each degree. Students may not be enrolled concurrently in two different institutions or two different degree programs or areas of specializations at Teachers College.

General Residence
For each degree, a candidate offers a minimum of thirty semester hours of acceptable graduate credits taken over no less than the equivalent of a minimum of two academic terms under Teachers College registration. Living on campus is not required. Students electing to earn more than one degree must consult the Registrar about general residence for multiple degrees. This information may be found in A ppendix A of the doctoral requirements bulletins, on the bulletin board outside the Office of the Registrar, and in departmental brochures.

Period of Candidacy
Candidates must be formally admitted to a degree program by the Office of A dmission. The period of candidacy for the degrees of $M$ aster of Arts, M aster of Arts in Teaching, M aster of Science, and M aster of Education is limited to five years. If a student is readmitted to a degree program with a period of candidacy beginning after the expiration of the initial five-year period of candidacy, the departmental integrative requi rement, and at least 16 points must be completed through Teachers College during the final five-year period prior to the award of the degree so as to meet recency require ments. Candidates may petition the Registrar for an exten-
sion of time for adequate reasons; the petition is acted upon by a faculty committee. In such cases, an extension must be recommended by the major advisor, current requirements met, including the departmental integrative requirement, and at least 16 points completed through Teachers College during the final five-year period prior to the award of the degree. Petitions for extension may be obtained from the Office of the Registrar.

## A cademic P erformance

The faculty of the College requires that all students maintain an acceptable grade average. Some departments specify an overall minimum grade average (see specific departmental statements). Any department judging a student to be performing below expectation is authorized by the Faculty to require additional course work as a means to evaluate the student's continuance within the degree program or at the College. A ny student receiving eight or more points in grades of C - or lower is not permitted to continue registration in the College in any capacity and may not receive a degree or diploma. Petitions for exceptions to this policy are to be submitted, in writing, to the R egistrar with a written recommendation from the department in which the student was last enrolled. Such petitions are then submitted to a faculty committee for review and decision.

A pplication for D egree or
Certificate A ward
Candidates for the award of a degree or certificate must file an application (obtained from and returned to the Registrar, in accordance with dates listed in the A cademic Cal endar). All courses, except those of current enrollment, must be completed at the time of application. If
the degree or certificate is not then earned, a R enewal-ofA pplication is to be filed for reconsideration of the award. (See A cademic Cal endar for dates.) An application for award terminates at the next time for degree conferral but may be renewed upon filing a Renewal-of-A pplication with the $\$ 15$ renewal fee in accordance with the dates listed in the A cademic Calendar. Degree applications are kept on file for a period of three years from the date of the original degree application.

## G raduation

All degrees and certificates are awarded in October, February and May. Degrees are conferred by the President of the U niversity at the annual commencement in May.

## M aster of Arts

## Point Requirement

The $M$ aster of Arts degree is granted upon the satisfactory completion of no less than 30 points and a formal essay; or 32 points and an acceptable departmental integrative project; or 32 points and successful completion of a departmental comprehensive examination. At least 20 points must be earned in Teachers College courses. The remaining course work, through Teachers College registration, may be completed in Teachers College or other graduate divisions of the University, but no more than 12 points of graduate credit from other faculties of the U niversity will be credited toward the minimum point requirement. Graduate level courses in the U niversity are numbered from 4000 and above.

A candidate for a second M aster's degree must be readmitted to candidacy by the Office of Admission. Courses and the integrative project, comprehen-
sive examination, or essay offered for the first M aster's degree may not be applied toward the second. The same minimum point requirements stated above apply, including three graduate Teachers College courses outside the major department.

## Program of Study

The program for the $M$ aster of Arts must include: a minimum of 12 points in the major field courses, the exact requirement to be determined in consulta tion with the major advisor. In order to broaden the student's background in education, three Teachers College courses outside the Teachers College major department (in this case, a course is defined as one for which at least two points are earned) must be completed as well as a formal essay, comprehensive examination, or an integrative project.

N o transfer credit is granted for work completed at other universities to satisfy the minimum point requirement. Electives are chosen in consultation with the major advisor.

## Essay

Students opting for the preparation of a formal essay should check with the Office of the Registrar for instructions. The formal essay must demonstrate the ability of the student to select, organize, and present the results of professional investigation in the major field. The essay may consist of a body of work in a studio or performance area, demonstrating the design, preparation, and presentation of professional works appropriate to the major field. Documentation of such works may include media such as photographs, color slides, TV tapes, film, recordings, or an approved computer software program. An outline of the subject of the essay must be
approved by the major advisor and forwarded to the R egistrar prior to or accompanying the application for the degree. The original copy of the formal essay is to be submitted to the Registrar no later than the dates indi cated in the A cademic Cal endar. The approved essay is submitted to the College library for retention; the departmental integrative project is maintained in the major department.

## M aster of Arts in Teaching

The M aster of Arts in Teaching, a Columbia University degree, for students from Columbia, Barnard, or the School of General Studies, is offered as an alternative to the Teachers College M aster of Arts degree for prospective secondary school teachers of English, Spanish, mathematics, science, and social studies. For the current year, applications to this program are not accepted.

## M aster of Science

The M aster of Science degree is granted upon the satisfactory completion of a minimum of 30 points and a formal essay; or 32 points plus a departmental inte grative special project; or 32 points and successful completion of a departmental compre hensive examination. At least 20 points must be earned in Teachers College courses. The remaining course work may be completed, under Teachers College registration, in Teachers College or in other graduate departments of the U niversity. Graduatelevel courses in the University are numbered from 4000 and above.

## Program of Study

The program for the M aster of Science degree must include at least 20 points in science courses and related technical fields. In order to broaden the student's background in education, a minimum of two Teach-
ers College courses outside the Teachers College major department (in this case, a course is defined as one for which at least two points are earned) must be completed as well as a formal essay, comprehensive examination, or a departmental integrative special project.

N o transfer credit is granted for work completed at other universities to satisfy the minimum point requirement. Electives are chosen in consultation with the major advisor.

## Essay

Please refer to this requirement under the M aster of Arts degree section.

## Master of Education

The M aster of Education degree is awarded upon satisfactory completion of a minimum of 60 points of graduate work. This is a two-year program. Thirty points must be completed under the auspices of Teachers College, including 18 points in Teachers College courses. A maximum of 30 points of graduate credit may be transferred from other recognized institutions. Candidates who have completed a M aster of Arts or M aster of Science degree through Teachers College must offer a minimum of 45 points of the required 60 points under Teachers College registration.

Candidates admitted to the Ed.M. program are required to offer a minimum of three Teachers College graduate courses in education outside the Teachers College major department. (In this case, a course is defined as one in which at least two points are earned.) Equivalent courses for which transfer credit has been granted may be substituted for Teachers College courses upon written petition to the Registrar. Additionally, either a formal essay, a depart-
mental comprehensive examination, or special departmental integrative project is required. Consult departmental advisory statements for additional requirements.

## Doctor of Education/Doctor of Philosophy

Teachers College offers programs of study leading to the D octor of Education and Doctor of Philosophy degrees. The requirements differ in accordance with the nature of the degree as described below.

The Office of D octoral Studies provides general information, administrative advice, and service to doctoral students and assists the doctoral committees in their supervision of the work of candidates for both degrees.

Requirements outlined below are described in further detail in the bulletins "R equirements for the Degree of Doctor of Education," "R equirements for the D egree of D octor of Education in College Teaching of an A cademic Subject," and "Requirements for the D egree of D octor of Philosophy." A prospective student should obtain the appropriate bulletin from the Office of Doctoral Studies. Each student is responsible for fulfilling the stated requirements. Doctoral programs are offered in many but not in all areas of specialization in Teachers College.
Therefore, a prospective doctoral student should consult a faculty advisor, either through conference or correspondence, concerning programs offered, the degree most appropriate for specific goals, any departmental requirements for admission and programs of study, and application deadlines.

Direct inquiries concerning admission to the Office of Admission of Teachers College and indicate the degree and field of interest in order to
receive appropriate information and application forms.

## Doctor of Education

The degree of D octor of Education emphasizes broad preparation for advanced professional responsi bilities through a program based upon extensive study in a specialized branch of the field of education or in an area of instruction. The minimum requirements for this degree are: satisfactory completion of a planned program of 90 points of course work beyond the Bachel or's degree (at least 45 points of which must be taken through Teachers College registration); submission of a statement of total program indicating periods of intensive study subsequent to the first year of graduate study which accompanies the program plan of study; satisfactory performance on a departmental Certification Examination; and the preparation and defense of a dissertation. Additional ly, students are required to complete a minimum of 20 points after taking the certification examination for the first time, including the points taken during the term in which that examination was taken. Students who were fully admitted before September 1, 1982 should consult with the Office of Doctoral Studies. Some fields of study have additional requirements; consult departmental advisory statements.

Special programs leading to the degree of D octor of Education for persons preparing for college teaching of an academic subject are offered in several departments. The programs emphasize broad preparation in the candidate's major field, specialized competence in a limited area within that field, and an understanding of the broader problems of education, especially at the college level. The minimum requirements are: satisfactory
completion of a planned program of 90 points of course work beyond the Bachelor's degree; submission of a state ment of total program indicating periods of intensive study subsequent to the first year of graduate study which accompanies the program plan of study; satisfactory performance on a departmental Certification Examination; and the preparation and defense of a dissertation. The point requirement beyond certification is the same for the program as described in the above paragraph. Some fields of specialization have additional requirements such as an examination in one foreign language or in mathematical statistics; consult departmental advisory statements.

Former TC doctoral students who have not registered in the last five years must apply for readmission through the Office of Admission. If readmitted, current degree requirements must be satisfied.

Continuous Registration
Requirement for the Ed.D. D egre
Students are required to be in continuous enrollment for a minimum of three points of Teachers Col lege course credit, or for the dissertation advise ment course, in each Autumn and Spring term, starting with the term following successful completion of the certification examination or following the term in which the dissertation proposal was approved in a departmental hearing, whichever comes first, and continuing until all requirements for the degree are met. (See Ed.D. Requirements Bulletin for policy on the dissertation advisement course) Certification examinations for students who take the examination in the Summer term are not usually evaluated by departments and programs until the

Autumn term. Consequently, these students will not be obligated for continuous enrollment until the following Spring term.

The obligation to register continuously ends after the dissertation has received final approval.

## Doctor of Philosophy

The degree of Doctor of Philosophy emphasizes research and intensive special ization in a field of scholarship. Under an Agreement with Columbia University, Teachers College offers programs leading to the Ph.D. degree in designated fields in which the Graduate School of Arts and Sciences of the University does not offer programs, namely in education, including education in the substantive disciplines and certain applied areas of psychology. The minimum requirements for the degree are: satisfactory completion of a planned program of 75 points beyond the Baccal aureate; submission of a statement of total program indi cating periods of intensive study subsequent to the first year of graduate study which accompanies the program plan of study; satisfactory performance on foreign language examinations and on a departmental Certification Examina tion; and preparation and defense of a research dissertation. Some fields of specialization have additional require ments; consult departmental program statements. Relevant courses completed in other recognized graduate schools to a maximum of 30 points, or 45 points if completed in another Faculty of Columbia University, may be accepted toward the minimum point require ment for the degree. Each degree candidate must satisfy departmental requirements for the award of the M.Phil. degree prior to continuance in the Ph.D. program. These degree
requirements are specified in the "Requirements for the Degree of Doctor of Philosophy," obtainable from the Office of Doctoral Studies.

A Ph.D. candidate must complete all requirements for the degree in not more than seven years. The time limit is six years for those who have received an applicable M aster's degree or 30 points of advanced standing. The candidate must register continuously each Autumn and Spring term until all requirements are met unless granted a leave of absence. A candidate who expects to interrupt study for any reason should consult the Office of Doctoral Studies so as to avoid the risk of severing connection with the program. All candidates are required to register in residence in the Graduate School of A rts and Sciences through Teachers College and to pay a fee in theterm in which the di ssertation is defended.

Continuous Registration for Dissertation A dvisement:- Ph.D D egree
Each Ph.D. student must register continuously for the course in doctoral dissertation advise ment offered by the department following enrollment in the department's designated dissertation seminar course(s) or following the term in which the dissertation proposal was approved, whichever comes first, and continuing until all requirements for the degree are met. (See Ph.D. Requirements Bulletin for policy on the dissertation advisement course.) Continuous registration for doctoral advisement is required each Autumn and Spring term, whether or not the student is in attendance, and in the Summer term when special permission has been granted to schedule an oral examination on the dissertation. Registration for

TI8900-Dissertation Defense: Ph.D. is required for the term in which the oral defense is held. See Fees and G eneral Offerings sections for further details. The obligation to register for dissertation advisement ends after the dissertation has received final approval. See section on Fees regarding dissertation advisement tuition.

## Postdoctoral Study

The facilities of Teachers College may be made available to persons holding the doctoral degree from approved institutions who desire to spend a period in advanced research or study. A pplication for admission to postdoctoral study for transcript credit should be made to the Office of Admission for Visiting Scholar Privileges. Guidance and counsel to post-doctoral students are provided by the Registrar in cooperation with the College faculty. International students should contact the Office of International Services.

## Registration Procedures

Students seeking course credit must be admitted by the Teachers College Office of Admission. For details, please refer to section on Admission. Former Teachers College degree students who wish to pursue a degree program and have not been in attendance during the past five years must apply for readmission in the Admission Office well before the registration dates. Those not in attendance within the last five years who do not desire degree candidacy should go directly to the Office of the Registrar.

Course registration may be completed by use of Teachers College Touchtone Services or the Student Information System on TC-W eb. Limited inperson registration is available during dates announced in the A cademic Cal endar.

## Teachers College Touchtone Services and The Student Information System on TC-Web

All students are expected to register via the tel ephone through Touchtone Services or on the web through the Student Information System on TC-W eb. It is the responsibility of each student to obtain advisement and approval for their course selections from their academic advisor prior to registering. Registering for classes that your advisor has not approved can seriously compromise your ability to fulfill degree requirements and may have unintended financial consequences. Students must al so obtain permission from the course instructor for any course listed in the Schedule of Classes that requires instructor approval. U se of Touchtone Services or the Student Information System on TC-W eb requires a Personal Identification N umber [PIN ]. N ew students will receive PIN numbers from the major department at the time of
advisement. Continuing students who did not receive or have misplaced theirs may obtain a PIN by presenting photo identification to the Registrar's Office [152 H orace M ann]. For security reasons, PIN numbers are not available over the telephone. The telephone number to access Touchtone Services is (212)678-3200. The URL for the Student Information System is https://info.tc.columbia.edu/homepage.htm. Both systems are normally available M ondays-Saturdays from 8 a.m. to 11 p.m.

W henever course enrollment has been entered on the computer registration system, the student is responsible for payment of the assessed charges unless the student follows the procedures for a change of program as outlined in the Schedule of Classes and in accordance with the dates listed in the A cademic Calendar. Failure to attend a course does not constitute an automatic withdrawal. (See section on
Changes in Registration and Withdrawal.)

Each registrant is expected to assume a major responsibility in program planning. A careful study of the general degree requirements and maximum point loads outlined in this Catalog, special departmental bulletins, and advisory recommendations should be taken into consideration.

During the regular in-person registration periods, faculty advisors will be available to consult with students and approve their programs; however, during the late registration period, advisors will be avail able from 3 p.m. to 5 p.m. on weekdays.

Teachers College students must have written permission of the Registrar before registering in any degree program outside the College. Additionally, students are not permitted to be enrolled concurrently in two degree programs within the University or the College.

## Maximum Point Loads

The number of points (credits), a point being the equival ent of a semester hour that a course carries per term, is given in parentheses following the course title. No more than 9 points may be taken during a summer session and no more than a total of 16 points in the summer term. No more than 18 points may betaken during the A utumn or Spring term; students who hold full-time positions are discouraged from enrolling for programs in excess of 8 points each Autumn and Spring term.

## Certification of Part-Time/ Full-Time Attendance

Enrollment status certification is based upon the number of points for which a student is registered per term. During the Autumn, Spring and Summer terms, "full-time" status is accorded to students registered for 12 or more points per term. Students enrolled for fewer than 12 points ( $0-11$ points) are considered "part-time." "H alf-time" status is based on enrollment of 6-11 points per term. Students registered for fewer than 6 points are accorded "less-than-half-time status." During the Summer Term, enrollment status is determined by the cumulative number of points in both Session A and B. For "full-time" status, students must register for a combined load of at least 12 points, with no more than 9 points in one summer session.

Students taking fewer than 6 points in a term may be certified as full-time or half-timeif they can present an approved Certificate of Equival ency (COE) form. The form is available from the Office of the Registrar and must be recommended by the student's advisor and approved by the Registrar.

No student will be certified for full-time, half-time or parttime status unless he or she is enrolled for that term in some form and, if necessary, has filed a Certificate of Equivalency in the Office of the Registrar during the first two weeks of the term. D octoral students may check with the Office of D octoral Studies regarding personal exemption or waivers. Students cannot be certified for future dates of attendance.

## Change in Registration

 and Withdraw alN otice of any change in your registration, including adding/dropping courses, changes of points in variable point courses, or of total withdrawal from the College, must be given to the Registrar in writing or completed through the online registration systems: Touchtone Services or the Student Information System on TC-W eb. Instructions for changes in registration and withdrawal through Touchtone Services or the Student Information System are published in the Schedule of Classes or may be obtained from the Office of Registrar.

The last date for changes in registration is indicated in the A cademic Cal endar. After this deadline, courses may not be added but a partial refund of tuition fees for withdrawal from courses may be authorized by the R egistrar. Fees are not subject to this reduction.

Reduction of tuition based on a sliding scal e is cal culated from the day the Registrar receives written notice from the student or the withdrawal is processed through Touchtone Services or the Student Information System on TC-W eb. The sliding scale is published in the Schedule of Classes for each term.

The deadl ine for making changes in points in variable point courses will extend until the class has met four times; dates are indi cated in the A cademic Calendar.

Courses with special dates must be dropped before the course begins to receive full tuition credit. There is no reduction of tuition for special date classes once the course begins or for fee based courses in art, music and dance after the close of the change of program period. Students who have registered for workshops that are offered through the Center of Educational Outreach and Innovation must withdraw from a workshop prior to the beginning of the workshop. Notuition rebates will be granted for a workshop onceit has begun.

Students who are deficient in their attendance or who perform their class duties unsatisfactorily may be required at any time to withdraw from a course, upon recommendation by the course instructor to the Registrar; in extreme cases, this may mean withdrawal from the College.

For grading symbols covering withdrawals, see Grades.

## Late Registration

A late registration fee of $\$ 100$ will be assessed for any registration requests approved after the last date for change of program; dates are indi cated in the A cademic Calendar.

## TUITION AND FEES

Tuition and fee rates are set annually by the Board of Trustees. Beginning in fall for the 2001-2002 academic year, tuition for all regular courses is $\$ 740$ per point. N on-credit courses vary in rate, usually depending on the minimum number of points for which the particular course is offered and the special services provided (see course description).

Columbia University's tuition is assessed per point or at a flat rate determined annually by the University's Board of Trustes. Each school's rate may vary. Consult the individual school or the College's Registrar for current rates.

Total tuition and fees are determined based on the number of points for which the student has registered. All tuition and fees charged are due and payable in full prior to the first day of classes for each semester. The chart below highlights the fees charged by the College.

Payment Options
Various forms of payment are accepted for tuition and fees and may be used individually or in combination. Teachers College accepts checks, money orders, most major credit cards, and cash. A deferred payment plan, a tuition pre-payment plan, tuition exemption, third party billing agreements, and financial aid are also available to finance a Teachers College education. Some restrictions may apply.

## Personal Checks, Cashier Checks or Money Orders-

Must be made payable to Teachers College. These types of payments can either be submitted in person, placed in the drop box, or mailed to the Office of Student Accounts; 525 W est 120th Street, Box 305; N ew York, NY 10027. The drop off payment box is located at the door of the Office of Student A ccounts, 133 Thompson H all. Do not place cash in this box. Please indicate the student's identification number and a valid daytime
tel ephone number on the face of the check or money order.

Credit Card Payments- Can be made by using the drop box, in person, by fax, through the web, or through the College's Touch-tone system. The fax must include the student's name, ID number, the credit cardholders' written authorization and signature, corresponding card type, card number, card expiration date and daytime tel ephone number of the cardhol der. The fax number is (212) 678-4139. The Touchtone system is available M onday through Saturday from 8:00 a.m. to 11:00 p.m. by calling (212) 678-3200. A personal identification number (PIN ) and the student's identification (ID) number are required to access both the Touch-tone system and the web. To make payments on the web, visit our website @ http://www.tccolumbia.edu/ student-resources/ then click on the Student Information Systems link. W eb payments can be made 24 hours/day 7 days/week. PIN s are provided

## Other Fees

| Teachers College Fee | $\$ 180$ |
| :--- | ---: |
| Teachers College Research Fee | $\$ 180$ |
| Health Service Fee | $\$ 238 / \$ 238$ |
| Medical Insurance Fee | (Basic) |
|  | $\$ 345 / \$ 529$ |
|  | (Comprehensive) |
|  | $\$ 506 / \$ 776$ |
| Application Fee (non-refundable and payable at time of application) | $\$ 50$ |
| Library Research Fee(for non-college users) per month | $\$ 100$ |
| Continuous Doctoral Advisement registration fee | $\$ 2220$ |
| Ph.D. Oral D efense fee | $\$ 3150$ |
| Late registration fee | $\$ 100$ |
| Late application fee for conferring of degrees | $\$ 15$ |
| Special examination fee (each course) | $\$ 25$ |
| Student identification card replacement fee | $\$ 5$ |
| Late payment fee (flat fee) | $\$ 50$ |
| (monthly fee) | $1-1 / 3 \%(16 \%$ |
| Returned check fee | $\$ 20$ |
| Deferred payment plan fee | $\$ 5$ |

Fees listed hereand elsewhere throughout this catalog are review ed periodically and are subject to change without prior notice. A dditional fees may be added. Spring medical insuranceruns through A ugust 31.
by the Office of the Registrar each semester.

Cash Payments- Must be made in-person at the Office of Student A ccounts, 133 Thompson H all. During the academic year, the Office of Student Accounts staff is avail able M onday through Thursday 9:00 a.m. until 6:00 p.m. and Friday 9:00 a.m. until 5:00 pm.

## D eferred Payment Plan-

 Students may choose to participate in The D eferred Payment Plan during the fall and spring semesters. The D eferred Payment Plan allows students to spread total tuition and fees, less any aid disbursed, over three equal installments during the semester. An agreement between the student and Teachers College must be completed with a representative of the Office of Student A ccounts no later than (September 7, 2001) for the fall semester and (J anuary 25, 2002) for the spring semester. A \$50 fee is required to participate in the plan and the first installment is due at the time the student signs the agreement. Tentative installment dates are provided on the following page:
## Fall Semester

First Payment
on or before (Sept. 7, 2001)
Second Payment
October 2, 2001
Third Payment
N ovember 2, 2001

Spring Semester
First Payment
on or before (J an. 25, 2002)
Second Payment
February 14, 2002
Third Payment
M arch 14, 2002

Failure to remit payment, as scheduled, in the D eferred Payment Plan will result in the assessment of a late payment penalty of $11 / 3$ percent on any unpaid bal ance.

Tuition Exemption-Students employed at the University may be eligible for tuition exemption. Authorized tuition exemption forms must be submitted in person. Avoid a late payment penalty by submitting your tuition exemption forms and any additional payments by the last day of in-person registration. If a student registers late, payment including tuition exemption is due at the time of the late registration. Various fees including, but not limited to, course fees, college fees, heal th service fees, medical insurance, and late registration fees are not covered by tuition exemption. The student should be prepared to remit payment for these fees.

## Third Party Agrements-

 Students enrolling under a third party agreement must submit an authorization form to the College for approval. A third party is usually an outside agency (not an individual) that agrees to pay all or part of the charges incurred by a particular student. The authorization form must include the student's name, relevant semester(s), and the total amount of tuition and fee charges that the third party is willing to pay. The form must be signed by an official of the third party agency. A third party agreement between the College and the agency MUST be completed annually before the start of the academic year.Financial Aid- If all required applications and documentation have been filed with the Office of Student Aid by the required deadline, financial aid awards should be available at the time of registration. Late application filing and anticipated student aid does with not constitute a deferment. Since tuition and all fees are due at the time of inperson registration, late payment penalties will be assessed on any outstanding balance as described under the Late Payment Penalties section of this bulletin. For further information about financial aid, review the section entitled "Student Aid Information."

## $L$ ate $P$ ayment $P$ enalties

Failure to clear all account balances can result in late payment penalties. An initial Late
Payment Fee of $\$ 50$ will be charged on any outstanding bal ance during the first billing period. A 1 1/3 percent monthly (16 percent annually) Late Payment Penalty will be assessed on any outstanding bal ance thereafter. In addition, failure to make timely payment of housing charges violates the dormitory agreement and may result in eviction. Furthermore, unpaid accounts can be referred to a collection agency.

The College reserves the right to withhold grades, transcripts, diplomas, and other services, including registration, from students whose financial obligations have not been fully satisfied. In the event Teachers College refers any unpaid balance for collection and/or legal action, the student will be obligated to pay all related costs including but not limited to attorneys fees and collection costs.

## Withdrawal from Classes

By registering for classes, a student has entered a legal and binding contract to pay all tuition, fees, and penalties charged by Teachers College.

W hen a student withdraws from Teachers College or from individual classes, thetuition charges originally assessed may be reduced, based on the date of withdrawal. Failure to attend classes does not constitute an automatic withdrawal; students must file an application to withdraw in the Office of the Registrar or through the Touchtone system in a timely manner. The percentage of reduction will be determined according to the following schedule:

Fall 2001

| Weak ending | Percent of refund |
| :--- | :---: |
| September 7 | $100 \%$ |
| September 14 | $100 \%$ |
| September 21 | $80 \%$ |
| September 28 | $75 \%$ |
| October 5 | $70 \%$ |
| October 12 | $65 \%$ |
| October 19 | $55 \%$ |
| October 26 | $50 \%$ |
| N ovember 2 | $40 \%$ |
| after N ovember 2 | $0 \%$ |

Spring 2002

| Weak ending | Percent of refund |
| :--- | :---: |
| January 25 | $100 \%$ |
| February 1 | $100 \%$ |
| February 8 | $80 \%$ |
| February 15 | $75 \%$ |
| February 22 | $70 \%$ |
| M arch 1 | $65 \%$ |
| M arch 8 | $55 \%$ |
| M arch 15 | $50 \%$ |
| M arch 22 | $40 \%$ |
| after M arch 22 | $0 \%$ |

Only Teachers College charges are subject to this reduction.

Student Refunds
Proceeds originating from student aid programs in excess of all student account chargestuition, fees, monthly housing, and other related expenseswill be mailed to the student. Students should make sure the Registrar has their current address. All required financial aid applications and documentation must befiled with the Office of Student Aid by the published deadline, and all financial aid eligibility requirements must be met. For further information about financial aid, review the section entitled "Student Aid Information."

## Financial Aid

M any students at Teachers College finance their educational expenses with federally guaranteed loans under the Stafford or federal direct loan programs. Students who are planning to apply for these loans must begin the process as early as J anuary for the following A utumn term and September for the following Spring term. Students may contact the Office of Student Aid for more details and processing requirements.

Federal income tax deductions of educational expenses of professional educators and other professionals
Under the current Internal Revenue code, certain expenses incurred for education may be deductible for federal income tax purposes. Possi ble deductions for teachers are described in some detail below. Similar deductions apply to other professional s engaged in education. Students are advised to consult a tax advisor concerning eligibility for such deductions.

For teachers, expenses incurred for education are deductible for federal income tax purposes if the education (1) maintains or improves skills of a teacher, or (2) meets the express requirements of the teacher's employer, or the requirements of an applicable law or regulation, imposed as a condition to the retention by a teacher of the student's employment relationship, status, or compensation. No deduction is allowed for educational expenses (even if they meet the above requirements) if they are incurred to satisfy minimum educational require ments for qual ification as a teacher or to qualify a teacher for a "new trade or business."

In respect to teaching, a "new trade or business" does not include educational employment involving the same general type of teaching and related duties as performed prior to the education. Under the Treasury D epartment rel eases, the following changes in teaching activities do not constitute a "new trade or business":

- Elementary to secondary school classroom teacher.
- Classroom teacher in one subject (e.g., mathematics) to classroom teacher in another (e.g., science).
- Classroom teacher to guidance counsel or.
- Classroom teacher to principal.

Educational expenses which may be deducted include those for travel, meals, and lodging while away from home if the travel is primarily to obtain education.

The foregoing is based upon information released by the U nited States Treasury Department in Treasury D epartment Regulations \#1.162-5. It is the responsibility of the student to
establish that the educational program qualifies for deductions in his or her case and to determine and document the amount of the deduction.

## General Regulations

D efinition of Point Credit
A point (equival ent to a semester hour) is the unit of College credit. For the typical student, a point of credit is earned by a minimum of two-and-one-half hours per week total time in lecture, laboratory, library, and outside work. These weekly two-and-one-half hours usually consist of (1) attendance for an A utumn or Spring term equal to one hour weekly in lectures or recitations or two hours in practical work, and (2) one-and-one-half hours additional work for each lecture, or onehalf hour extra for each twohour laboratory period. On this basis, a typical student with a sixteen-point program works a total of forty hours per week in classes and in outside preparation. These are averages, however; some students find it necessary to devote moretime to preparation.

There are some vari able-point courses in which a student can register and earn extra credit by doing additional work approved by the instructor. This additional work may entail additional reading, preparing a term paper, engaging in some special project, out-of-class group activities, or fieldwork.

## Credit and Noncredit Courses

Teachers College courses are detailed elsewhere in this Catalog. Certain courses in other parts of the U niversity are open to students in Teachers College, upon the approval of their course instructors and advisors.

Always consult the official catalog of the Faculty, College, or Department in which work is desired. Do not depend upon references or quotations in other announcements.

Some credit-bearing courses are offered al so on a noncredit basis, as indicated in the course description. U nless stated otherwise, the fee is one-half of the tuition rate for the minimum number of semester hours (points) for which the course is offered. No Teachers College fee is charged; however, any laboratory fees or special fees announced in the courses are additional. To arrange for attendance at such courses, apply directly at the Office of the R egistrar of Teachers College. It is not necessary to follow formal admission and registration procedures. No official record of registration for noncredit courses is kept; and no transcripts certifying to attendance or work completed are issued by the Registrar. W hen registering for a course on a noncredit basis, one may not change one's enrollment to credit or vice versa.

Fees for special events such as workshops, institutes, and conferences vary. See the announcement for each special event, as published by the Center for Educational Outreach and Innovation.

Teachers College reserves the right to cancel or modify the courses listed in this catal og and other official publications and to change the instructors as may be deemed necessary.

## Auditing

Students currently enrolled for 15 or more points may audit one or two courses in Teachers College without fee. Applica tions for auditing privileges are obtai nable from the 0 ffice of the Registrar during the change-of-program period. Courses with limited enrollment, laboratory courses, elementary language courses, seminars, and continuing education workshops will not be open to auditors. Audited courses will not appear on the transcript and may not later be applied for credit.

Certified doctoral candidates may audit Teachers College courses which enhance their professional interests. Such courses will not appear on the transcript or fulfill any academic requirement. An eligible doctoral candidate, upon presentation of the certified doctoral candidate card, may obtain an application to audit from the Office of the Registrar, secure written approval of the course instructor, and return the approval form to the Office of the Registrar during the change-of-program period. An auditing permit will be issued.

## Attendance

Students are expected to attend all classes for which they are registered and are responsible for absences incurred by late enrollment.

## Religious Observance

It is the policy of the University to respect its members' observance of their major religious holidays. W here academic scheduling conflicts prove unavoidable, no student will be penalized for absence due to religious reasons, and alternative means will be sought for satisfying the academic requirements involved. If a suitable arrangement cannot be worked out between the stu-
dent and the instructor, students and instructors should consult the appropriate department chair or director. If an additional appeal is needed, it may be taken to the Dean of the College.

Some of the major holidays occurring during the current academic year are:
Rosh H ashanah
Yom Kippur
First days of Succoth
Concluding days of Succoth
Hanukkah
Id al Fitr
Passover
Good Friday
Id al Adha
Shavuoth
The Jewish and Islamic holy days begin at sundown of the preceding day.

It should be noted that because of the size of the event and the space avail able, convocations held at Commencement take place in either RiversideChurch or the Cathedral of St. J ohn the Divine. The facilities are used in a non-sectarian manner.

## Grades

Grades in Teachers College are recorded as eval uative, pass/fail, or attendance. All grading symbols used are listed below, as approved by the Faculty on A pril 27, 1984. Students el ecting to begraded on a basis other than the ones announced by the course instructor must request the option and obtain the instructor's written approval not later than the close of the third class meeting. An application for grading options is obtainable from the Office of the Registrar and needs to be filed in the Registrar's Office no later than the close of the third class meeting. Once the option has been approved and filed with the R egistrar, it is not subject to change.

Grades are defined as follows:
A+ R are performance. Reserved for highly exceptional, rare achievement.

A Excellent. Outstanding achievement.
A- Excellent work, but not quite outstanding.

B+ Very good. Solid achieve ment expected of most graduate students.
B Good. Acceptable achievement.
B- A cceptable achievement, but below what is generally expected of graduate students.
C+ Fair achievement, above minimally acceptable level.

C Fair achievement, but only minimally acceptable.
C- Very low performance. The records of students receiving such grades are subject to review. The result of this review could be denial of permission to register for further study at Teachers College. N o more than three points of C- may be credited toward any degree or diploma. Students completing requirements for more than one degree or diploma may count three points of C toward only one such award. A student who accumulates eight points or more in C or lower grades will not be permitted to continue study at the College and will not be awarded a degree or diploma.

F Failure. The records of students recei ving such grades are subject to review. The result of this review could be denial of permission to register for further study at Teachers College. A course usually may not berepeated unless it is a required course. W hen the course is required, the student will reregister and obtain a satisfactory grade. The previous grade remains on the transcript.
P Passed. Some courses are graded only on a pass/fail basis for the instances in which greater evaluation specificity is neither required nor desirable and is used to indicate passing performances when only dichotomous evaluation is used. At no time will the transcript carry any other grade nor will supplementary statements be issued. Application for the Pass/Fail option is to be made during the first three class sessions with the approval of the course instructor. Applications are available in the Office of the R egistrar, 148 H orace M ann. Once the option is approved, it may not be changed.
DP Doctoral pass credit. The grade of DP may be assigned only to a certified doctoral candidate in a Teachers College course, having successfully completed all requirements prescribed by the instructor. The candidate must request DP credit before two-thirds of the class sessions have met. Eligibility is determined upon presentation of the doctoral identification card, and a record of the request for a DP grade is made by completing a form obtainable from the

Office of the Registrar. DP credit is avail able to doctoral students only in terms subsequent to the terms in which the student is certified. DP credit may not be used toward M.A. or M.S. degree requirements. A maximum of 6 points of DP credit may be used toward Ed.M. degree requirements.

W D Withdrawn. Withdrawal occurring subsequent to the close of the change-of-program period during the term. See section on withdrawal from courses.
YC Year Course. The symbol "YC" is assigned for the first half of a year course (courses with a "z" suffix). At the end of the second half, the grade is entered on the transcript denoting the instructor's evaluation.
R Attendance Credit. Students desiring R credit for any course must request permission, in writing, to the instructor, before two-thirds of the class sessions have met. The instructor may approve or deny the request. If approval is granted, the instructor may stipulate requirements to be met in addition to regular attendance. Forms are avail able in the Office of the Registrar to be used for obtaining approval. M athematics majors in the department of $M$ athematics and Science Education must have their applications cosigned by the program coordinator. The applicability of $R$ credit in meeting degree pro-
gram requirements is noted as follows: For M aster of Arts and $M$ aster of Science degrees, no R credit is permissible. For M aster of Education degree programs, a maximum of six semester hours of attendance credit is acceptable in meeting the point requirement, but may not be used to satisfy the three-course out-of-department requirement. For doctoral programs, a maximum of nine semester hours of attendance credit is permitted toward the minimum point requirement for the degree, provided they are not used to fulfill the minimum distribution requirements.

The above grades are final and may not be changed.

IN Incomplete. U sed when attendance requirement has been met but granting of a grade has been postponed because, for reasons satisfactory to the instructor, certain course assignments are outstanding. If the outstanding work is not completed within one cal endar year from the date of the close of term in which the incomplete was recei ved, the grade will remain as a permanent incomplete on the transcript. Extensions of time for completion, based upon compelling reasons, are to be recommended by the instructor and approved by the Registrar. If the assignments are completed within the year and a grade submitted, a final grade will be recorded on the permanent transcript. The original mark of Incomplete will not be expunged from the student's record.

Release of transcripts, student information, and student access to official academic records The College regards the student's transcript as a personal and private document; it is rel eased only upon written authorization of the student and payment of the required fees. The fee for one transcript is \$5; plus \$3 for each additional transcript in the same order. Unpaid financial obligations to the College will result in the withholding of student transcript and/or diploma. Teachers College does not duplicate copies of transcripts from other institutions which were submitted in support of the applicant's application for admission to the College. Requests from Federal agencies about a student's record for employment purposes are acknowledged when the student's written authorization is on file.

The College provides for individual student review of the official student folder as provided in Public Law 93-380. The College's policy on the student's review of an academic folder and the release of Student Directory Information is contained in the "Guide to Student Rights and Responsibilities," obtai nable from the Office of the Associate Dean and published in the Student H andbook.

## Academic Discipline

Student admission, continuance upon the rolls of the College, receipt of academic credits, graduation, and the conferring of any degree or diploma shall be strictly subject to the disciplinary powers of the College, which shall be free to cancel registration at any time, on any grounds in which it deems advisable, subject to student appeal procedures where applicable as
described in the "Guide to Student Rights and Responsibilities," obtainable from the Office of the A ssociate D ean and published in the Student $H$ andbook.

## Student Conduct Code

The official policy statement on student conduct, which was adopted on August 8, 1968, and amended on N ovember 17, 1976, is as follows: "W hile Teachers College does not operate on the basis of detailed regulations and procedures, it does expect its members to observe traditional canons of scholarly discourse, academic behavior, and due process. Students as well as faculty are expected to exhibit the high level of personal integrity which society must demand of professionals. Teachers College uses as a guide the principles proposed in the Joint Statement on Rights and Freedoms of Students, drafted in 1967 by representatives of several educational organizations, including the American Association of U niversity Professors, the A ssociation of American Colleges, the U.S. $N$ ational Student Association, the $N$ ational Association of Student Personnel Administrators, and the $N$ ational A ssociation of Women's Deans and Counselors.
"Teachers College insists on the greatest degree of freedom of inquiry, teaching, learning, and expression for all its members. The exercise of these rights, however, must not violate the free exercise of the same rights by other members of the community. Thus, activities which disrupt the regular and essential operations of the College and/or Columbia University or impede the free flow of ideas or individual movement in Teachers College and/or Columbia U niversity are not permitted.
"Students or other members of the University community may register charges of violating these standards with the Office of the A ssociate Dean. Students found guilty of violating these standards of conduct may be subject to appropriate disciplinary action, ranging from reprimand to disciplinary probation, suspension, or expulsion."

Columbia University has Rules of University Conduct which apply to all those who visit its campus or use its facilities. Violations of these Rules can lead to sanctions including the revocation of permission to visit the Columbia campus or use its facilities and suspension or dismissal from Columbia courses in which a Teachers College student may be enrolled.

A "G uide to Student Rights and Responsibilities," obtainable from the Office of the Associate Dean and published in the Student $H$ andbook, is avail able to all members of the Teachers Coll ege community. It provides details concerning the due process procedures which are required when a charge is made against a student. This publication also describes the procedures which
are to be followed by a student who has a grievance.

## Safety and Security

Teachers College is located in N ew York City, one of the most important and dynamic cultural and educational centers in the world. The Office of Safety and Security helps to keep the campus safe and secure, but a truly safe campus can be achieved only through the cooperation of all students, faculty and staff. Security officers are responsible for a wide range of services, which include responding to accidents; medical or fire emergencies; investigation and preparation of incident reports; and coordinating police response functions. They are all certified by the state and must pass a state certification exam in order to qualify for a position as a security officer.

Teachers College security officers are on patrol 24 hours a day, 7 days a week, holidays included. Teachers College is located within the 26th Precinct of the N ew York City Police Department and works cooperatively with them. In addition, institutional security offices, including Columbia University, Barnard College, Union Theological Seminary,
and the M orningside A rea Alliance, a community agency funded in part by various agencies in M orningside H eights, complement Teachers College Security efforts. Teachers College has more than 60 security video cameras located on the campus, including the residence halls, which tape and monitor daily activity. For increased security in the residence halls, the buildings are equiped with card swipe access.

| CA MPU S CRIME STAT ISTICS |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | ---: |
|  | $\mathbf{1 9 9 6}$ | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ |
| Assaults | 2 | 3 | 3 | 2 | 1 |
| Auto Theft | 0 | 0 | 0 | 0 | 0 |
| Burglary | 21 | 19 | 19 | 20 | 49 |
| Murder | 0 | 0 | 0 | 1 | 0 |
| Robbery | 3 | 1 | 1 | 1 | 1 |
| Sex Offenses: |  |  |  |  |  |
| Forcible | 0 | 0 | 0 | 0 | 0 |
| Sex Offenses: | 0 | 0 | 1 | 1 |  |
| Non-Forcible <br> Manslaughter | 0 | 0 | 0 | 0 | 1 |
| Arson | 0 | 0 | 0 | 1 | 0 |

## Full bleed photo

## Residence Life at Teachers College

The Office of Housing and Residence Life at Teachers College strives to create a multicultural campus community that supports students in their academic endeavors and personal growth. The residence halls bring together graduate students from all over the world in an environment that provides a unique opportunity to establish new friendships, explore other world views, and take advantage of all that N ew York City offers. Living close to the campus affords students easy access to the library, classrooms, gymnasium, and other Columbia U niversity facilities. Students may chose to take advantage of a wide range of planned residence hall activities, club meetings, departmental lectures, and musical and dance events.

There are a variety of housing options for single students and students accompanied by spouses, domestic partners, and families. Teachers College has approximately 450 spaces available for single students and 150 apartments for students with families. Because of the high demand for student housing, five years is the maximum amount of time that a student may remain in the Teachers College residence halls. The Office of H ousing and Residence Life accepts applications up to a year before a student plans to begin studying at Teachers College.

## Eligibility for Student Housing

To be eligible for housing, students must be enrolled in a degree program and registered to take classes at Teachers College. To maintain eligibility, residents must complete a minimum of 24 credits (or have full-time equivalent) during each 12 month period beginning with the fall semester
(12 credits during the spring semester for students beginning residency that semester). Residents who complete said credits may remain in thehalls through the summer provided they have not yet completed degree requirements and will be enrolled for the fall semester.

## When to Apply for Housing

H ousing offers are based on availability of rooms/apartments, geographic priority, and the date of receipt of the housing application. Also, only applicants who have met all admissions requirements (admitted, intent to enroll, admissions deposit, paid, etc.) will be considered. Applicants who live more than 50 miles outside of N ew York City have the highest priority.

The Office of Housing and Residence Life recommends the following timeline for submitting an application:*

## For Fall term entry:

February 1
For Spring term entry:
September 1
For Summer A term entry: December 1
For Summer B term entry: J anuary 1

The application process for housing is separate from the admission process. H ousing applications are accepted up to one year prior to enrollment. Given the limited number of on-campus spaces, applicants are encouraged to apply early and directly to the Office of H ousing and Residence Life. A pplicants who submit their housing applications after the priority deadlines listed above should also research al ternate housing options in N ew York City. For other housing suggestions, please refer to our web site at www.tc.columbia.edu/ ~administration/res-life.

## Please N ote: On-campus housing is not guaranteed.

## Notification of Housing Offers

The Office of Housing and Residence Life will notify students of their housing assignment prior to the semester for which a student plans to enroll. Typically, offers are made in A pril for the summer term, in J une for the fall term, and in N ovember for the spring term. The notification of availability of space is accompanied by a housing contract that must be returned with a $\$ 500$ non-refundable security deposit. This deposit is not used as rent, but, rather is held in an interest-bearing account for the duration of the student's residence.

## Housing Assignments

H ousing assignments to a particular room/apartment are made based on space availability and the received date a student's housing application.
Every effort is made to try and accommodate each applicant's housing preferences. There is a transfer period after the semester begins. Students may choose to exercise the transfer option if the College was unable to accommodate the original request.

Each student's assignment letter contains information regarding the unit to which the student has been assigned. This information includes the type of unit, the semester price, the mailing address, and the tele phone number. Also, information regarding check-dates and times will be enclosed.

## Single Student Housing Options

There are two buildings currently avai lable to house single students-Greystone R esidential H otel and W hittier H all.

The Greystone R esidential H otel is located on the upper W est Side of $M$ anhattan at 212 W est 91st Street and Broadway. Teachers College leases 100 rooms or about $20 \%$ of the fifteen floor building. The remainder of the building is leased by other colleges and long-term private occupants. There is a front desk and evening security is provided. Each room is a self-contained unit with private bath with the average size of the apartments being 218.5 sqft. All rooms are furnished with a bed, desk, dresser, closet, desk chair, lounge chair, small refrigerator, burners for cooking and small dining table with two chairs. Complete cooking facilities are located in the student lounge, which is furnished with microwaves, a full-size oven, and dining tables; in the adjacent room is a TV lounge. Students must provide their own linens, towels, cooking utensils, clothes hangers and other household items. The telephone in each room is connected to the central switchboard to accept calls. Pets are not permitted. The building is located near a subway stop and bus line. It is approximately a 30 minute walk or a 15 minute bus ride to the Teachers Col lege campus.

W hittier H all is located at 1230 Amsterdam Avenue (at the corner of 120th Street). There are several different types of housing accommodations offered in the building. All assignments offer a private bedroom. R oom sizes vary in all accommodation types. In the single rooms, kitchen and bathroom facilities are shared by approximately 20 students. Suite areas have kitchen and bath facilities shared by three to six individuals. Efficiency units, one bedrooms, and studio units all have private bath and kitchen facilities. All student
housing is partially furnished with a bed, desk, desk chair, overhead light, easy chair, mirror, chest of drawers and/or wardrobe. The efficiency, one and two bedroom, and studio units have a private kitchen, with a kitchen table and chairs provided. Students must provide their own linens, towels, cooking utensils, clothes hangers and other household items. Microwaves are provided for students in suites, efficiencies, studios and one bedrooms. Combination microwave and refrigerator units are provided in the single rooms. Telephone with voice mail, cabletv service, and computer data service are also included in each room.

## Single Student Housing Rates

| A cadenic $Y$ emr 2001-2002 | A verage <br> Semester <br> $R$ ate $R$ ange |
| :---: | :---: |
| Greystone Residential H otel |  |
| Efficiencies | \$3815 |
| Whittier H all |  |
| Single rooms | \$2530 |
| Suite rooms | \$2885 |
| Efficiencies | \$3995* |
| Shared |  |
| Two-bedroom |  |
| A partments | \$3530* |
| One-bedroom |  |
| A partments | \$5220* |
| Studios | \$5245* |

*There are limited numbers of these units available.

## Family Housing Options

Teachers College also offers three residence halls for student family housing: Bancroft, Grant, and Sarasota H alls. These buildings provide one bedroom apartments, two bedroom apartments and three bedroom apartments. One bedroom apartments are assigned to families with one child or none. Depending upon availability, two bedroom and three bedroom apartments are assigned to families with two
or more children. All family housing apartments are furnished with a double bed, dresser, mirror, desk, bookshelf, dining table and chairs, a sofa, an easy chair, and one floor lamp. Residents may request for furniture to be removed from the apartment if they wish to bring their own. Window curtains, blankets, pillows, linens, kitchen utensils, dishes, rugs, and extra lamps must be provided by the residents.

## Grant and Sarasota H alls at

512 and 514 West 122nd Street, respectively, are each six story buildings with four apartments on each floor. The two front apartments have an entry foyer, living room, bedroom, kitchen, and bathroom. The two back apartments have a long hal lway with the bedroom, kitchen, bath, and living room opening off the hallway.

Bancroft Hall is an eight story residence with 108 apartments. Each unit has a bath, kitchenette, and bedroom(s). The front apartments face 121st Street and are slightly larger. Back apartments face a large courtyard which joins Bancroft to Grant and Sarasota. A desk clerk is on duty 24 hours a day in Bancroft H all. The desk clerk at Bancroft H all monitors the entrances of G rant and Sarasota via closed-circuit television.

## Family Housing Rates

| A cadenic Y ear | A verage <br> Semeter <br> Rate Range |
| :---: | :---: |
| Bancroft, G rant, <br> and Sarasota <br> Halls |  |
| One-bedroom <br> A partments | $\$ 5620$ |
| Two-bedroom <br> A partments <br> Three bedroom <br> A partments <br> (only two areavailable) | $\$ 5875$ |

Semester rents vary according to the size and location of the apartment. Residents pay their phone bill and electric charges. Utility service provided in the semester charge include: heat, gas, tel ephone service with voice mail and cabletv.

## Family Housing Policy

Teachers College accepts family housing applications from and offers assignments to, traditional and non-traditional families, both with or without children. For the purposes of this policy, however, the Office of Housing and ResidenceLife defines traditional family to be two spouses, both of whom will be in residence (with or without children) or a single parent with one or more dependent minors in residence. A nontraditional family is defined to be two adult domestic partners (with or without children in residence) who present evidence, described below, of a long-term relationship with each other characterized by an emotional and financial commitment and interdependence.

## Resident of Record

Family housing assignments are made sol ely to the resident of record. This is the person who is defined as the principle Teachers Col lege student member of the family at the time of housing assignment. The apartment assignment and agree ment will be in the name of the resident of record. It is the obligation of the resident of record to pay the security deposit and all residence hall charges. The College will look solely to the resident of record to fulfill the obligation. No relief from this obligation will be avai lable to the student if his or her status in the family changes during the term of the assignment. Each student who applies for family housing is obligated to inform the Office of H ousing and Residence Life
in writing of any change in the student's family status that occurs after the application is made and before the expiration of the assignment. If as a result this change of status, the student or the other family member is no longer eligible to remain in family housing, he or she is obligated to vacate the premises at the written request of the A ssociate Director of Housing by the end of the semester or thirty days, whichever is earlier date. If the remaining family member is eligible for single student housing, the Office of Housing and Residence Life will attempt to accommodate the student. However, neither the Office of Housing and Residence Life nor Teachers College are under any obligation to provide single student housing for persons whose family housing assignment has been terminated.

Requir ements for Residence H all Family Housing
A pplicants must demonstrate that both the applying student and the individual ( $s$ ) with whom the space is to be shared constitute a family in order to be eligible for family housing. Qualifying family relationships under this policy are those rela tionships evidenced by marriage; the presence of minor, dependent children; or evidence of a domestic partnership, i.e., a long-term relationship between the two adult domestic partners characterized by an emotional and financial commitment and interdependence. Qual ifying family rela tionships do not include a relationship with parents, grandparents or siblings, other than a minor sibling for whom an adult member of the family is the legal guardian. Qualifying families without children are eligible only for one bedroom apartments.

Evidence of Family Status
In determining whether the applicants constitute a qual ifying family rel ationship, the following shall be acceptable evidence of such a relationship:
a) In the case of marriage, a current certificate of marriage.
b) In the case of a single parent with one or more dependents, a birth certificate, adoption papers, or other appropriate documentation of legal guardianship.
c) In the case of two adult domestic partners, the attached affidavit form must be notarized. Also, one of the following must be included with the housing application:

1. A joint lease naming and signed by both applicants and their landlord indicating that the applicants have shared the stipulated premises as their primary residence for a minimum of one cal endar year immediately prior to their application. In the event the applicants are owners of their property instead of apartment renters, the appropriate deed of joint ownership, naming both parties, and evidence that these premises were their primary residence for the one cal endar year immediately preceding their application can be substituted; or
2. Joint tax returns for one cal endar year immediately preceding the application; or
3. A notarized letter on bank letterhead signed by a bank officer indicating that the named applicants have had a joint saving and/or checking account at the bank for the last cal endar year; or
4. An Affidavit of Domestic Partnership from N ew York City or any city which registers unmarried couples who are in a committed, on-going family relationship.

Please contact the Office of Housing and Residence Life with any questions about eligibility for domestic partnership.

Important T hings to C onsider about the Residence H alls
A pplication

- The attached application is for continued Teachers College housing. If you want summer, conference, or guest housing, please contact the Office of Housing and Residence Life at (212) 678-3235.
- The Teachers College housing application will not be considered unless it is filled out completely. A pplicants for family housing must submit one of the following appropriate forms of documentation: (a) marriage certificate; (b) birth certificate or adoption/guardianship papers; (c) domestic partnership affidavit which has been notarized and one additional supporting document selected from the options presented in the Family H ousing Policy section.
- Please send the housing application along with the $\$ 20$ non-refundable application fee to the Office of H ousing and Residence Life as soon as possible. M ake the $\$ 20$ application fee payable to Teachers College. Applications will not be processed unless the \$20 fee is remitted.
- Please remember that offers for housing will not be made until you are officially admitted to Teachers College in a degree program, and have met all Admission requirements. The Office of H ousing and Residence Life encourages you to complete your admis-
sion application as soon as possible so this does not del ay your housing assignment. You may submit an application for housing even if you have not yet been admitted to a degree program.
- It is your responsibility to notify the Admissions Office of any subsequent changes in address or phone number. Any misinformation given will void the application and cancel any housing assignment made.
- H ousing applications are only considered for the initial semester for which you apply. If you must defer your application, you will need to notify the Office of H ousing and Residence Life in writing. Your application will then be considered for the requested semester. The housing application can only be deferred up to one year.
- If you have any questions regarding housing, please feel free to contact the Office of H ousing and Residence Life by telephone at (212) 678-3235, or by fax at (212) 678-3222. The Office of H ousing and Residence Life is located on the first floor of W hittier H all, which is next to the bookstore.

Our mailing address is:
Office of Housing and Residence Life Box 312
525 W est 120th Street
N ew York, N Y 10027

## Who Should Use <br> This Application?

- FIR ST-TIM E applicants for admission to master's, advanced master's, or doctoral degree status.
- Former Teachers College students who have not registered for (five) 5 or more years and are applying for admission to degree status (whether or not a degree has al ready been earned).
- Applicants to post-doctoral non-degree programs.
- Applicants who applied two or more years ago to Teachers College, but never enrolled. (The Office of Admissions holds incomplete applica tions and applications for those who were admitted but did not enroll for only two years.)
- First time applicants to nondegree status may use either this form or the N on-D egree A pplication.

The following students should
use the "Reapplication for
Admission" (obtained in the
Office of Admission, R oom
146 H orace M ann):

- Those who are currently registered at Teachers College who wish to pursue further study (either in a different program or a different degree).
- Former Teachers College students who have been registered in the last five years and wish to apply to a degree program.

Please N ote: Former Teachers College students who wish to register as a non-degree students only should go directly to the Office of the Registrar during Registration for information about registration procedures.

## The Self-M anaged

## Application Process

A pplicants should collect and submit all letters of reference and transcripts with their application as well as any other
supporting documents in the enclosed return envelope addressed to Teachers College.

Please request that official copies of any required standardized test score report such as the GRE, MAT, or TOEFL, be sent directly to the Teachers College Office of Admission by the Testing Centers. To expe dite an application, the applicant may submit an unofficial copy of her/his test scores with the application if she/he has al ready taken the test. For GRE, TOEFL, or other tests administered by the Educational Testing Service, the assigned institution code for Teachers College is 2905.

## Components of the

Complete Application
The completed application pack age should include the following items:

1. Completed application form (included in this Catalog).
2. Personal Statement, typed on a separate piece of paper. (See "Personal Statement" below.)
3. The sealed and signed envel opes containing the official transcripts of the schools the applicant has attended. (See "Transcripts" below.)
4. The seal ed and signed envel opes containing the letters of reference. (See "Letters of R eference" bel ow.)
5. Any additional requirements an applicant needs to submit for her/his intended area of study (e.g., writing sample). Please refer to the individual program information sections of this Catal og to determine other requirements.
6. A check or money order in U.S. dollars and drawn on a U.S. bank made payable to Teachers College in the following amounts:
\$50 N ew applicants
\$25 Former Teachers
College students

Please note:
Applicants to Teachers may apply to only one program at a time.

## Only applications completed with all supporting material by the deadline will be acted upon.

U nder no circumstances will an application submitted to the Office of Admission be returned to the student or forwarded to a third party.

## Deadlines

See pages 99-100, entitled "Admissions A pplication Deadlines," for information.

Please note that admissions application deadlines al ways refer to the date by which the application must be complete, i.e., the date by which the Teachers College Office of Admissions must have recei ved the application, application fee, personal statement, resume, official transcripts, recommendations, test scores, and any other supporting material required by the department.

## Notification of Decision

The Office of Admission will notify the applicant once the application is complete. The length of the application review process varies from program to program. The official notification of the decision is the letter bearing the signature of the Director of Admission. Applicants will be notified of the admission decision by mail only. Decisions will not be given over the tel ephone or by email. A pplications not recei ved by the deadl ine date may beheld for review for the next avail lable semester.

## Transcripts

First-time applicants to the College must submit one official transcript from each college or university in which they were enrolled for any period of
time, showing all courses, grades and degrees recei ved, if any. Applicants should request that the transcript(s) be returned to them in a sealed envelope with the signature of an authorized official across the seal. Please send only ONE transcript per school attended.

If there will be a delay in sending the official transcript, an applicant may submit a legible photocopy pending receipt of the official record by Teachers College. Student copies of transcripts run from a university web site are not acceptable.

U nder no circumstances will transcripts be returned to an applicant or forwarded to another college, university, or place of business. All records submitted in support of an application for admission become part of a student's permanent record at Teachers College.

## Letters of Reference

Please submit two letters of reference (unless a third is required- see "Special Application Requirements/Information" section of program description). W rite the name, title, address, and telephone number of each reference in the space provided on the Application for Admission.

Letters of reference should be written by people who can comment from personal knowledge on the applicant's academic or professional qual ifications for graduate study. W herever possible, letters of reference should be submitted from academic sources. If, however, an applicant has been out of school for a number of years, she/he may substitute professional references. R eferences written by family members or friends are not appropriate for the purposes of this application.

A pplicants should present the reference forms included in this Catal og to the people writing the references. (Please use photocopies of the form, if necessary.) Each recommender must enclose the letter in an envelope, seal the envelope, sign across the seal, and return the envel ope to the applicant. A pplicants should include the envel opes, unopened, in their application package. If the person writing the reference prefers to send it directly to the Office of Admission at Teachers College, she or he may do so. If they choose not to use the form provided, the reference must be written on official letterhead and must be signed. Unsigned reference letters will not be accepted. A credentials file at a previous college or university may be submitted to fulfill the letters of reference requirement. H owever, if an applicant has been out of school for five or more years, she/he should submit one additional current letter of reference.

Letters of reference are used for admission and scholarship review in the applicant's intended field of study only. All letters of reference are destroyed after the review process. Under no circumstance will letters of reference be returned to an applicant or forwarded to another college, university or place of business.

## Personal Statement

On a separate sheet of paper, applicants should write a brief statement of about a page or two in length describing their background, past work in the intended field of study, plans for graduate study and a professional career, or any other information they fed is relevant. A pplicants who are currently registered in a graduate program at another university should explain why they wish to leave.

The personal statement is an important part of the application review process. Please take the time and care to present a carefully planned and written statement. The personal statement should betyped. If it is not possible to type it, please print or write legibly.

## Standardized Tests

A pplicants should refer to the program information in this catal og to determine whether standardized tests [the G raduate Record Examination (GRE)-General and/or Subject, Miller A nal ogies Test (MAT), the Test of W ritten English (TW E), or any other test, are required in the intended field of study. Applicants are encouraged to take any required standardized tests well before the application deadline for the program to which they are applying.

The TOEFL is required of all applicants whose first language is not English and those who have recei ved a bachel or's degree from any country or university where English is not the official language of instruction. The results of this examination should not be more than two years old. The minimum TOEFL score required by most departments is 600 on the written test and 250 on the computer-based test. A pplicants may obtain an application from their local U.S. Information Service counsel ing or binational center or by writing to: Test of English as a Foreign Language, Box 899, Princeton, NJ 08541, USA.

Applicants may al so submit scores, not more than two years old, from the Certificate of Proficiency of English (CPE) or the International English Language Testing System (IELTS). The minimum overall grade required on the CPE is a $B$ or better. A n overall score of 7.5 or above is required on the

IELTS. Both exams are offered by the U niversity of Cambridge Local Examinations Syndicate (UCLES). Applicants may request further information about these tests from: UCLES, 1 Hills R oad, CambridgeCB1 2EU, United K ingdom. Telephone: 01223 553311. Fax: 01223460278. Email: guymer.1@ucles.org.uk.

If an applicant is in N ew Y ork City when she/he applies, she/he may take the Columbia University English Placement Test (EPT) instead of TOEFL. The minimum EPT score is level 10 on both sections of the examination and should be no more than two years old. Tele phone (212) 854-3584 to make an appointment for the test, and inform the Office of Admission of the date the test will be taken. M ake certain that the results of the EPT are forwarded to the Office of Admission.

Students who require nonstandard administration of the tests should consult with the Office of Services for Students with Disabilities at (212) 6783689 V/TDD for information about such accommodations.

## International Students

International students must submit detailed school records of all subjects taken and examinations attempted for all university or other tertiary level work completed plus proof of graduation, where avai lable. These records may have various names in other countries such as releve de notes, mark sheets, student book, etc. In the U nited States they are called "transcripts." All records should show dates of attendance, subjects studied, grades (marks or final assessments) received, hours per week spent in lectures, and degrees or diplomas awarded. Official records in the native language must be submitted with certi-
fied word for word English transl ations (where appropriate). Foreign language records will not be accepted without both the translation and official copy of the original. Course descriptions may be required later for determining advanced standing or degree equival ency, but are not required at the time of application.

If a school an applicant attended is no longer in existence or it is impossible for her/him to obtain official documents from a school she/he has attended, the applicant should have the M inistry of Education of that country furnish an official statement testifying to the impossibility of obtaining records. The M inistry should al so supply Teachers College with a list of courses ordinarily required in the degree program an applicant has followed in that school or university.

To be reviewed for admission to Teachers College, international students must have earned, at least, the equivalent of a U.S. bachel or's degree.
Applicants who do not have the equivalent degree will not be considered for admission. The Office of Admission will review all credentials and determine bachelor's degree equival ency. Incomplete records will not be reviewed for admission. Students who have earned a bachel or's degree or its equival ent from a college or university where English is not the official language of instruction must take the TOEFL, the CPE, the IELTS, or the Columbia University English Placement Test (see "Standardized Tests" section).

Papers necessary to obtain a student visa are sent only after an applicant is officially admitted to Teachers College and has submitted the financial affidavit (enclosed for international students) certifying that
she/he has the necessary funds to meet the cost of study at Teachers College. H olders of the student visa ( $\mathrm{F}-1$ ) are required to study full-time, i.e., at least 12 points per semester.

Be certain that any form not issued in English is accompa nied by a notarized English translation.

## Immunization Requirements

 N ew York Statelaw requires college students to be immunized against measles, rubella, and mumps. The law applies to all students born on or after January 1, 1957. Beginning in the Autumn term of 1991, graduate students will have to show proof of immunity. Proof of immunity consists of:- For measles- two doses of live measles vaccine administered after 12 months of age, physician documentation of measles di sease, or a blood test showing immunity;
- For rubella (German measles)- one dose of live rubella vaccine administered after 12 months of age or a blood test showing immunity;
- For mumps- one dose of live mumps vaccine administered after 12 months of age, physician documentation of measles di sease, or a blood test showing immunity.

Students should check their immunization records with their heal th care provider to be certain they meet these requirements. For further information, contact the local health department or Susanne N anka-Bruce, Director of Student Life, Teachers College, 525 W est 120th Street, Box 308, N ew York, NY 10027; telephone: (212) 678-3406.

## Transfer Credit

Only graduate courses which have been (1) completed with grades of $B$ or higher, (2) submitted on an official transcript from a regionally accredited institution, and (3) having been granted/assigned credit on the transcript of that institution, may be considered for transfer. Transfer credit is awarded at the discretion of the faculty advi sor. For the M aster of Education and the Doctor of Philosophy, a maximum of 30 points completed outside of Teachers College may be transferred. For the D octor of Education, up to 45 points may be transferred; moreover, for the Doctor of Philosophy, up to 45 points completed in another faculty of Columbia U niversity may be transferred. N o transfer credit is awarded for $M$ aster of Arts students.

## Admission as a Non-degree Student

 For admission to non-degree status, applicants must file an application for non-degree status, provide evidence (transcript, or photocopy of their diploma) that they hold a baccal aureate degree from a regionally accredited institution, and pay the $\$ 50$ nonrefundable application fee. There are no deadlines for admission to non-degree status. A pplicants may register as a nondegree student on the day of registration. Students may continue to take courses for credit in a non-degree status as long as they meet the academic standards of the College. H owever, should a student become a degree candidate, only 16 credits taken in non-degree status may be accepted toward degree requirements, and only 8 of these credits may be credited toward minimum requirements in the major field.Special Needs
Students with special needs are invited to request information and assistance from the Office of Access and Services for Individuals with Disabilities, Teachers College, 525 W est 120th Street, Box 105, N ew York, N ew York 10027. Tele phone: (212) 678-3689. The office is located in the lobby of Thorndike Hall.

## Deferral of Admission

Students may defer their admission to a M aster of Arts, M aster of Education, or M aster of Science degree program for up to two years. Those admitted to doctoral programs must have the permission of the program to which they were admitted to defer an offer of admission. Requests for deferral of admission must be made in writing to the Office of Admission.

The goals of the student aid program at Teachers College are to reward excellence through merit-based aid and to ease the cost barrier to attendance through schol arships and need-based programs including grants, Federal loans, and the Federal W ork-Study Program. A student must be enrolled at least halftime (6 points or the equival ent) in a degree program in order to recei ve Federal Aid. The Teachers College Financial Aid website is updated frequently. Please visit the website at www.tc. columbia.edu/financial aid/ for further information on endowed and external scholarships.

## Scholarships and Grants

Each year Teachers College awards over $\$ 5$ million of its own funds in scholarship/ stipend aid and $\$ 2$ million of endowed funds to new and continuing students. M ost scholarship awards are made on the basis of academic merit. Scholarships are applied to tuition only, and students should expect to provide additional funds for the tuition bal ance, fees, medical insurance, academic and living expenses.

## Please note:

- Except for points awarded as part of a graduate assistantship, all scholarship points must be used in the year awarded and may not be transferred to a future academic year.
- All scholarship recipients must successfully complete a minimum of 9 points per academic year in order to be eligiblefor schol arship awards in future academic years.
- Full-timeTeachers College and Columbia U niversity affiliated employees (including dependents and spouses) who are eligible to receive 15 points or more of tuition exemption annually may not receive Teachers College scholarship aid, unless the
scholarship they receive derives from a publicized academic competition (i.e. W. Sindlinger Writing Award) in which recipients have been selected via committee.

G eneral Scholarships Based upon merit, all students are eligible for Teachers College General Scholarships. Program faculty committees make these award decisions.

M inority Student Scholarships Teachers College M inority Scholarships are available to U.S. citizens and eligible noncitizens who identify themsel ves on the admissions application as being a member of a federally recognized U.S. ethnic minority group, or as having a federally recognized disability. A minority status must be identified on the admissions application. Students who leave their minority status blank on their admissions application will not be considered for this scholarship. Students with disabilities must be registered with the Teachers College Office of Services for Students with Disabilities. Program faculty committees make these award decisions based upon academic merit.

International Student Scholarships Teachers College International Student Scholarships are available to international students only. The award process is competitive. Program faculty recommend students for these awards to their academic program and departmental scholarship committees.

Departmental Supplemental Scholarships
These scholarships are available to students enrolled in teacher education/certification programs. Students are nominated by the program faculty to a department committee. Awards are made based upon merit.

Stipends, Internships, F dlowships, and Research A ssistantships Stipends, internships, fellowships, graduate, and research assistantships are al so available through the program faculty. These provide students with val uable experiences which enrich academic growth and development, as well as income which may be applied towards college and living expenses.

## G raduate A ssistantships

Students who are employed as graduate assistants (payroll category 6181) earn a stipend plus a tuition scholarship. Students may be awarded up to 3 points per semester, with a maximum of 6 points per academic year (fall, spring, summer). Points may be used during the semester awarded, or one semester beyond.

G rant-in-A id
Grant-in-A id is awarded primarily to doctoral students during the last two semesters of graduate work, taking both merit and need into consideration. Students must demonstrate considerable loan indebtedness incurred while at Teachers College. International students are required to seek approval from the International Student Advisor. Faculty recommendations in support of Grant-in-A id applications are required. A pplications are available in the 0 ffice of Student Aid or at www.tc.columbia.edu/financial aid/Forms/ forms.htm. The G rant-in-Aid committee meets monthly from September to June to make awards decisions.

Endowed Scholarships
Endowed scholarships are provided through the generosity of donors' contributions. M any of these are in support of students in particular programs. Faculty committees select the award recipients based upon the criteria designated by the donor. Some endowed schol arships are
avai lable to students across many programs. For these, faculty nominate students to a College-wide sel ection committee, which makes the final award decisions. There are over 300 endowed scholarships.

This is a partial list of endowed scholarships.

J affeScholarship
This scholarship will support at least two full time students with a preference given to minority candidates. This scholarship is available to new students only.

J ewish $F$ ederation for the Education of Women (JFEW) For three full-time female preservice science and math education students willing to teach for 2 years in N Y C public schools. This is a full tuition schol arship that is available to new students only. Financial need is required.

M agsaysay/B oxley Scholarships These scholarships provide ten full time students who are applying to teacher certification programs and who demonstrate financial need and dedication to classroom teaching, with full scholarships covering tuition and fees for the duration of their master's work. Only students applying for an MA in a pre-service teacher education program are eligible for this award. This scholarship is available to new students only.

N ichol son F amily Schol arships Provides support for Teachers College students selected by the Dean and President of the College for outstanding academic merit. This scholarship is available to new students only.

Peace Corps F el lows P rogram The Peace Corps Fellows Program offers partial tuition remission on a competitive basis to returned Peace Corps

Volunteers. W hile enrolled part-time in selected areas of study leading to an M.A. degree, Peace Corps Fellows are employed full-time by the N ew York City Board of Education and teach in N ew York City Public Schools. Additional information may be obtained by visiting the website at www.tc.columbia.edu/ pcfellows, by calling the Peace Corps Fellows Program Office at (212) 678-4080 or by writing to the Program at Box 90, Teachers College, Columbia University, 525 W est 120th Street, N ew York, N Y 10027.

R ose $F$ dlows
These fellowships award up to 18 points of tuition in addition to a stipend to students working as interns under the direction of Teachers Coll ege faculty on a project(s) selected by the donor. Faculty choose the student interns. New and continuing students are eligible.

Teacher Opportunity Corps Teacher Opportunity Corps (TOC) scholarships are available to N ew York State residents who are A frican-A merican, H ispanic, N ative American, or Alaskan American. Recipients must al so be U.S. citizens or permanent residents. Applicants must be prospective or experienced teachers who are not yet fully certified to teach in the public schools. To be eligible, recipients must enroll at least halftime in one of the following Teachers College programs: Bilingual/Bicultural Educa tion, Elementary Education, $M$ athematics Education, $M$ ove ment Sciences, M usic Education, Science Education, Social Studies, Special Education, Teaching of English or Teaching of English to Speakers of Other Languages (TESOL). TOC recipients receive some funding for each academic year of their degree program. A separate application must be made
to this program. Additional information and an application can be obtained from theTOC Program Office at (212) 6783471 or 3466.

Selected External Scholarships, Fellowships and Grants

- Sinfonia Foundation Research A ssistance Grants
These grants are offered to candidates conducting research in American music or music in America. M ore information is avail able at www.sinfonia foundation.org.
- AT\&T Labs Fellowships and Grants
These awards are avail able to outstanding minority and women students who are $U$. S. Citizens or Permanent Residents and who are pursuing Ph. D. studies in computer and communications-rel ated fields. M ore information is available at www.research.att.com/ academic/alfp.html.
- Emerson Charitable Trust Offers grants for community funds, higher education, cultural programs, hospital s and heal th agencies, public policy organizations and youth agencies for the arts, education, federated giving programs, higher education, public policy and research, youth services. M ore information is available at www.emersonel ectric.com.
- K odak Education Technology Grant Program
Supports innovative curriculum projects incorporating imaging and computer technologies that test new ways to increase the effectiveness and productivity of teaching and learning processes. This program provides K odak products, cash and in-kind service to academic institutions. M ore information is available at www.kodak.com/U S/en/corp/ community.shtml.
- The M agnet Schools Assistance Program
Provides grants to eligible local educational agencies and consortia of such agencies to support magnet schools that are part of approved desegregation plans. M ore information is available at ocfo.ed.gov/fedreg/ grantann/q300/073100b.txt.
- Edward G. Begle Grant for Classroom-B ased Research Supports coll aborative class-room-based research in pre-college mathematics education. M ore information is available at www.nctm.org/about/ met/begle.htm.
- N ew York Tuition Assistance Program (TAP)
The N ew York Tuition Assistance Program awards funds to residents of N ew York State who are attending an approved postsecondary institution in N ew York full-time. More information is available at www.hesc.state.ny.us/tap.html.
- American Association of School Administrators: Graduate Student Scholarships
This scholarship is open to graduate students who intend to pursue the public school superintendency as a career. For more information Email: dpierce@aasa.org.
- D al e Seymour Scholarships, Grades K - 12 Teachers A wards given to persons currently working at the grades K-12 level who are interested in improving their mathematics background to provide, in turn, better math instruction to their students. M ore information is available at www.nctm.org/ about/met/.
- Ernest Duncan Scholarships, Grades K - 12 Teachers Awards are given to persons currently working at the grades K - 6 level to improve their own professional competence as a
classroom teacher of mathematics. M ore information is available at www.nctm.org/ about/met/.
- $N$ ational Science Teachers A ssociation - www.nsta.org/ programs/
- American Educational Research Association (AERA) -
www.aera.net/anews/ compete.htm.
- Spencer Dissertation Fellowships
The Dissertation Fellowship Program for Research Related to Education assists young scholars interested in educa tional research in the completion of the doctoral disserta tion. M ore information is available at www.spencer.org.
- N SF Graduate Fellowships Offers three-year graduate research fellowships in science, mathematics, and engineering, including W omen in Engineering and Computer and Information Science awards. M ore information is available at www.orau.org/nsf/nsffel.htm or email: nsfgrfp@orau.gov.
- Ford Foundation Minority D octoral Fellowships Three-year predoctoral and 12month dissertation fellowships. $M$ ore information is available at www4.nas.edu/osep/fo.nsf.
- International Predissertation Fellowships (Social Science Research Council)
To encourage social science students early in their graduate careers, especially in economics, political science, and sociology, to devel op internationally oriented research careers that focus on A frica, China, Latin America, the N ear and Middle East, South Asia, and Southeast A sia. M ore information is available at www.ssrc.org/fellowsh.htm.
- Mellon Fellowships in H umanistic Studies These Fellowships are designed to help exceptionally promising students prepare for careers of teaching and scholarship in humanistic disciplines. M ore information is avail able at www.woodrow.org/mellon/.


## - Charlotte W. N ewcombe Doctoral Dissertation FelIowships

These fellowships are designed to encourage original and significant study of ethical or religious values in all fields of the humanities and social sciences. M ore information is available at www.woodrow.org/ newcombel.

- $N$ ational Collegiate A thletic Association (N CAA) Postdoctoral Research Fellowship The N CCA seeks an outstanding individual for a one-year postdoctoral fellowship (with the possibility of a second-year reappointment) in applied educational research. Applicants should have a background or interest in national educational policy issues such as trends in academic preparation and outcomes of postsecondary students. M ore information is available at http://www.ncaa.org/ human_resources/benefits.html.
- Jeanne S. Chall Research Fellowship
TheJ eanne S. Chall Research Fellowship is a grant established to encourage and support reading research by promising scholars. M ore information is available at www.reading.org/about/ whatwedo/awards/ or Email: gkeating@reading.org.
- Eleanor R oosevelt Teacher Fellowships
Teacher Fellowships are available to femaleK - 12 public school teachers as individuals or as lead members of teams.

M ore information is available at www.aauw.org/3000/ fdnfelgra.html.

- Gates Millennium Scholar Program
The Foundation seeks to increase the number of A fricanAmericans, American Indians/Alaska $N$ atives, A sian Pacific Americans, and Hispanic Americans enrolling in and completing undergraduate and graduate degree programs. M ore information is available at www.gmsp.org/.
- The H ispanic Scholarship Fund
The H ispanic Scholarship Fund (H SF) is the largest Hispanic scholarship-granting organization in the nation. H SF recognizes and rewards outstanding H ispanic students in higher education throughout the United States and Puerto Rico. M ore information is available at www.hsf.net.
- N ational AM BUCS Scholarships for Therapists
Graduate students who wish to pursue degrees in physical therapy, occupational therapy, speech language pathology, or hearing audiology. M ore information is avai lable at www.ambucs.com/scholarships.htm.
- The Paul and Daisy Soros Fellowships for N ew Americans The Fellowships are grants for up to two years of graduate study in the U nited States. The recipients are chosen on a national competitive basis. M ore information is available www.pdsoros.org.
- N ew York StateTuition
Aid-BOCESITI-B

Awards are made to persons in Bilingual Education/TESOL. Please contact the director: Dr. M aria Eugenia V al verde, Eastern Suffolk BOCESITI-BE, 350 M artha A venue, Bellport, NY 11713.

## Loans

There are several types of student loans available to Teachers College students. To qualify for any of the federal Ioans, an applicant must be aU.S. citizen or an eligible non-citizen and must be enrolled at least half time ( 6 points or the equivalent) in a degree program. International students may qualify for credit-worthy loans from Teachers College by securing a co-signer who is a U.S. citizen or permanent resident. Consult with a student aid counselor for more information.

There are a number of incentive programs offered by various federal, state and local government agencies that will defer and/or cancel a portion of a student's federal education Ioan debt, usually Perkins but sometimes Stafford Ioans.

If a student recei ves a federal loan, she/he must participate in a Loan Entrance Interview before receiving the initial funds, and a Loan Exit Interview before graduating, leaving Teachers College, or dropping to less than half-time status. The Entrance Interview will review the terms and conditions of the loan, and the Exit Interview will cover repayment, deferment and consolidation options. Loans are processed during the semester a student is enrolled. For additional information on student loans please visit our website at www.tc.columbia.edu/ financial aid/.

Teachers College G eneral L oan Students who demonstrate need and are enrolled at least halftime or the equival ent may be eligible for Teachers College General Loans (TCGL). If a student receives a TCGL, the funds will be credited each semester after the student has signed a promissory note. The promissory note must be completed in the Office of Student

A ccounts. W hile repayment of the principal is deferred until six months after the student leaves Teachers College, interest accrues at a rate of $9 \%$ annually from the day the student signs the promissory note. Information on the loan process and repayment options can be obtained from the Office of Student A ccounts in 133 Thompson Hall. Repayment may take up to 4 years.

The following loans requirea Free A pplication for Federal Student A id (FA FSA) and a separateloan application or promi ssory note To ensure consideration for the P erkins Loan and the F ederal Work-Study programs, it is recommended that the FAFSA befiled by M arch 1 st. In order for Stafford loans to be processed in timefor the beginning of the F all semester, applicants are urged to file the FA F SA by A pril 30th.

F ederal Perkins L oan Federal Perkins Loans are awarded on the basis of exceptional need from a limited amount of federal funds allocated to Teachers College. Students must be enrolled at least halftime ( 6 points or the equival ent). The loan is made up of government funds with a share contributed by the school. Teachers College is the lender and repayment is made to the school. Payment of both interest and principal is deferred until nine months after leaving Teachers College or dropping to less than half time. The annual interest rate of 5\% begins to accrue at the same time payments begin. Repayment may take up to 10 years.

## Stafford L oans

Direct and FFEL Stafford Loans are the Department of Education's major form of self-help aid for Teachers College students. Direct Stafford Loans are available through the W illiam D. Ford Federal Direct Loan (Direct Loan) Program and

FFEL Stafford Loans are available through the Federal Family Education Loan (FFEL) Program. Theterms and conditions of a Direct Stafford or a FFEL Stafford Ioan are similar. The major differences between the two are the source of the loan funds, some aspects of the application process, and the avai lable repayment plans. Under the Direct Loan Program, the funds for the loan are lent to the student directly by the U.S. government. U nder the FFEL Program, the funds are lent to the student from a bank, credit union, or other lender that participates in the FFEL Program.

Direct and FFEL Stafford Loans are either subsidized or unsubsidized. Students can receive a subsidized loan and an unsubsidized loan for the same enrollment period.

A subsidized Ioan is awarded on the basis of financial need. The student will not be charged any interest before they begin repayment or during authorized periods of deferment. The federal government "subsidizes" the interest during these periods.

An unsubsidized loan is not awarded on the basis of need. Students are charged interest from the time the loan is disbursed until it is paid in full. If the interest is al lowed to accumulate, it will be capitalized, that is, it will be added to the principal amount of the loan and additional interest will be based upon the higher amount.

For periods of study that are less than an academic year, the amounts students can borrow may be less than the annual maximum. The exact amount of Ioan eligibility will be listed in the award letter. Generally, graduate students can borrow up to $\$ 18,500$ each academic year. (Only $\$ 8,500$ of this
amount may be a subsidized Stafford Loan.)

The amount given above is the maximum yearly in both subsidized and unsubsidized loans. Students may receive less than the yearly maximum if they receive other financial aid that is used to cover a portion of the cost of attendance.

## Graduate Stafford Loan

Limit: G enerally, for graduate or professional students, the total permissible outstanding debt from all Stafford Loans combined is $\$ 138,500$. Only $\$ 65,000$ of this amount may be in subsidized loans. The graduate debt limit includes any Stafford Loans received for undergraduate study.

Other Loans
There are several student loan programs administered by private institutions that provide funds to students who do not qual ify for Federal or needbased loans or who may need additional funding. They are often avail able from banks, and require a processing fee, a credit check, and in some cases, a co-signer. Securing a cosigner can result in lower interest on the loan. For informa tion on banks that have preferred lending agreements with Teachers College please visit our website at http://www.tc.columbia.edu/fin ancialaid/.

L oan Cancellation and/or D eferment
There are a number of incentive programs offered by various federal, state and local government agencies that will defer and/or cancel a portion of a student's federal education Ioan debt, usually Perkins but sometimes Stafford Ioans.

The most common cancellations are Perkins and qualifying Stafford loans for teachers working full-time in federally designated teacher shortage areas. These public and other non-profit private elementary and secondary schools are located in school districts that qualify for funds under Chapter 1 of Titlel of the Elementary and Secondary Education Act.

Loan payments can also be deferred for teacher service in federally designated teacher shortage areas. For example, the $N$ ew York City Board of Education offers further programs to help fund a student's education.

For a complete explanation of school and loan eligibility requirements as well as searchable databases of qualifying schools, please visit the Department of Education web sites listed below. These web sites also contain details about loan cancellation and/or deferment.

- N ew York City Board of Education Incentive Programs: http://www.teachny.com/html/ programs/incentive.html
- U nited States Department of Education Teaching Service Cancellation/D eferment Options:
http://www.ed.gov/offices/OSF AP/Students/repayment/ teachers/index.html
- United States Department of Education list of federally designated teacher shortage areas: http://www.ed.gov/offices/ OSFAP/Students/repayment/ teachers/tsa.html
- United States Department of Education searchable site for Iow-income schools eligible for Perkins Ioan cancellation: http://www.ed.gov/offices/ OSFAP/Students/repayment/ teachers/search_t00.html

The following is a list of contact people in the Departments of Education for states in geographic proximity to Teachers College:

- New York (NY)

K evin McCarthy, A ssociate
Educational Data Systems
N ew York State Education Department
W ashington Avenue, Room
863, EBA
Albany, NY 12234
(518) 474-7965

- N ew Jersey ( N )

D avid J oseph, Director IRM
New Jersey Department of Education
Trenton, NJ 08625
(609) 984-6617

- Connecticut (CT)

William Choquette
Senior Research Analyst
Connecticut State Department of Education
P.O. Box 2219

H artford, CT 06145-2219
(860) 566-2284

- Pennsylvania (PA)

J eanne H obaugh, Statistician
Pennsylvania Department of Education
333 M arket Street
Harrisburg, PA 17126-0333
(717) 787-2644

Those who plan to teach in a state other than those listed above should visit the following web site:

- http://www.ed.gov/offices/ OSFAP/Students/repayment/ teachers/tsa.html


## Student Employment

Opportunities for student employment are avai lable at Teachers Col lege. Students should inquire at the Teachers College H uman Resources Office and with program faculty for a list of current vacancies. Many positions offer tuition exemption or scholarship points.

Federal Work-Study
Subsidized employment is also available through the Federal W ork-Study program. Federal W ork-Study is awarded to students based on need. To apply, students must complete the FAFSA and be enrolled at least half time ( 6 points or the equival ent) in a degree program. A work study award means that the student is entitled to a job on or off campus, earning an hourly wage up to the amount of the award during that academic year. Only agencies which have an existing contract with Teachers College may offer students off campus work-study employment. Students must seek placement assistance from the Teachers College H uman Resources Office.

G raduate A ssistantships Students who are employed as graduate assistants (payroll category 6181) earn a stipend plus a tuition scholarship. Students may be awarded up to 3 points per semester with a maximum of 6 points per academic year (fall, spring, summer). Points may be used during the semester awarded, or one semester beyond.

## New York State TAP

Full-time students (at least 12 points or the equivalent) who are N ew York State residents may be eligible to apply for the Tuition Assistance Program
(TAP). Students who want to be considered for TAP must file a FAFSA, giving the federal government permission to rel ease information to N ew York State. For more information call N ew York State Higher Education Services Corporation (N Y SH ESC) at (518) 474-5642 or (800) 642-6234.

## How to Apply for Aid

U.S. citizens and Eligible non-atizens
All students are encouraged to file a Free A pplication for
Federal Student Aid
(FAFSA ), regardless of eligibility for Federal Aid. The FAFSA is avail lable by J anuary of each year from the Office of Student Aid. Students can al so find and file the FAFSA on the web at
www.fafsa.ed.gov. Teachers College's institutional code is G03979.

After filing the FAFSA, students will receive a Student
Aid Report (SAR) which must be reviewed for accuracy, and necessary corrections made. If there are questions, contact the Office of Student Aid. Students may al so be required to submit copies of the their federal tax returns and other supporting documents to verify the information on the FAFSA.

N ew A pplicants
The Teachers College Catalog sent to you by the Office of Admission will contain infor-

To recei ve priority consideration for scholarships, new students must complete their admissions application by the following deadlines:

| Term | D egree/Programs | D eadline |
| :--- | :--- | :--- |
| Spring 2001 | All degree levels |  |
| Fall 2001 | All Ph.D. programs, all <br> psychology Ed.D. programs <br> Fall 2001 | Dec. 15th |
| Fall 200. 2001 | All Ed.D. programs except for <br> psychology programs | Jan. 2nd |
|  | Master's Programs | Jan. 15th |

mation about scholarships and grants, loans, student employment, and the application procedure for student aid.

D epartments make scholarship decisions based on the degree applications of the new students and on the Teachers College academic records for the continuing students. There is
no official scholarship application for new students, although some schol arships do require demonstration of financial need.

## Continuing Students

Continuing students must file the FAFSA for each year that they wish to be considered for financial aid. Continuing students must also file the Teachers College Continuing Student Schol arship Application by Feb. 1 to be considered for internal scholarships in the following year.

## International Students

International students should review the Application Procedure for International Students and the scholarship opportunities for international students.

## How Need-based Eligibility

 is DeterminedThe information provided on the FAFSA is applied to a federally designed formula which cal culates the "estimated family contribution," the theoretical amount the student should have avai lable for educational costs. The cost of education minus the family contribution is "need". The total amount of need-based aid cannot exceed this figure.

N ormally, the need cal culations are based on data from the prior cal endar year. H owever, the Office of Student Aid may recal culate family contribution if the student's financial circumstances change significantly during the academic
year. Students requesting recalculation based on academic year information should provide a written explanation of the circumstances and consult a student aid counselor to determine the supporting documentation that will be needed.

## Lifetime Learning Credit

On August 5, 1997, the Taxpayer Relief Act of 1997 was signed into law and created several new tax benefits for families who are saving for, or already paying for higher education.

The Lifetime Learning Credit targets undergraduate and graduate students. Qual ifying Graduate students will receive a 20\% tax credit for the first $\$ 5,000$ of qualified tuition and related expenses for each eligible student in the family, through the year 2002, and for the first \$10,000 thereafter. This credit is available for net tuition and fees (minus any additional grant aid) paid for an enrollment period beginning July 1, 1998.

Students may want to download a brochure that explains the options. The brochure, "N ew Tax and Savings Options for Education," can be found at the following website: www.tiaacref.org/taxfile.pdf.

## How Aid is Aw arded

To award need-based funds, the College makes up an academic year student budget that consists of the average costs of tuition, fees, and other expenses. The amount for tuition and fees, books and supplies is adjusted based on fulltime, threequarter time, and half-time enrollment. If enrollment plans change during the academic year, students should notify the Office of Student Aid in case it becomes necessary to adjust the aid package.

During the 2001-2002 academic year, the estimated Fall/Spring budget for a fulltime student enrolled for 24 points is:

| Tuition and Fees | $\$ 19,502$ |
| :--- | ---: |
| Living Allowance | 11,083 |
| Books and Supplies | 2,400 |
| Transportation | 1,340 |
| Miscellaneous | 5,500 |
| Total | $\$ 39,825$ |

The family contribution toward academic year living and educational expenses is then deducted from this budget. For example:

| Budget | $\begin{array}{r}\$ 39,825 \\ \text { Family Contribution } \\ -(4,620)\end{array}$ |
| :--- | ---: |
| $N$ eed | $\$ 35,205$ |

After need is determined, the Office of Student Aid tries to meet this amount with financial aid. Often, a variety of sources are combined into a pack age, which might look like this:

D epartment
Scholarship
\$5,920
(\$740 per point)

| P | 500 |
| :---: | :---: |
| Federal W ork Study | 5,000 |
| Federal Perkins Loan | 2,000 |
| Federal Subsidized |  |
| Stafford Loan | 8,500 |
| Federal Unsubsidized |  |
| Loan | 10,000 |
| otal | 31,95 |

If students cannot provide the full amount of the family contribution, some banks offer credit-worthy loans that can be used to finance the remaining cost of attendance. H owever, the total of all financial aid, including loans used to replace family contribution, cannot exceed the total cost of attendance.

## How Aid is Disbursed

Scholarships are disbursed to a student's account on the first day of in-person registration once the student has registered in a degree program for the semester.

Federal Ioans are disbursed when a student meets the following criteria: 1) has been accepted in a degree program; 2) has registered for at least half time status each semester; 3) has completed an entrance interview; and 4) has completed verification of income and residency, if required.

Tuition, fees, account charges, and refunds are processed by the Office of Student A ccounts, which is located in 133 Thompson Hall.

## Additional Steps and Conditions

 Prior to Release of Funds Prior D efault: Students in default on a federal loan, or who owe a repayment on a Pell, SEOG, or SSIG grant cannot receive federal need-based aid until the status is cleared.Satisfactory A cademic Progress: In order to maintain eligibility for aid, students must make satisfactory progress toward their degree. In addition to meeting all standards of academic performance required in the program, students must complete a minimum number of points per semester. For a full-time student, the minimums are:

| After this semester | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ | $\mathbf{6}$ | $\mathbf{7}$ | $\mathbf{8}$ | $\mathbf{9}$ | $\mathbf{1 0}$ | $\mathbf{1 1}$ | $\mathbf{1 2}$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| M aster's students <br> must complete: | 6 | 15 | 27 | 39 | 51 | 53 | 63 | 63 | 63 | 63 | N o longer <br> eligible |  |
| D octoral students <br> must complete: | 6 | 15 | 27 | 39 | 51 | 63 | 75 | 87 | 90 | 90 | Dissertation <br> Advisement |  |
| With at least <br> this GPA: | 2.5 | 2.5 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |

## For M ore Information

Students are encouraged to visit our website at www.tc.columbia.edu/financial aid/, visit the Teachers College Office of Student Aid, located in R oom 138, H orace M ann H all, or call (212) 678-3714 to recei ve more information.

## Application for Admission

## Teachers College, Columbia U niversity

Pleasetype or print in black ink
Sodal Seurity N umber

Name $\qquad$
Title: Ms. $\square$ Mr. $\square$ Other $\qquad$ Any prior last/family name:
NOTE: Your application will be processed under the name given above. If you were registered at any of the institutions listed below under any other name or any variations of your name as given above, please write that name above.

| Permanent Address |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Number | Street |  |  |
| City | State | Zip Code |  | (N ew Y ork State residents only: County) |
| H ome Telephone |  |  | Country |  |

 W ork Telephone_Fax \#
Please indicate the program to which you are applying.

## program

specialization if required (see program descriptions)
For which degree are you applying? [check one]
$\square$ M aster of Arts
$\square$ M aster of Science
$\square$ Master of Education
$\square$ N on-Degree
$\square$ Doctor of EducationDoctor of Education in the Coll eege Teaching of an A cademic SubjectDoctor of Philosophy

For which term are you applying? [insert year]
an. 20 $\qquad$
$\square$ May 20July 20 $\qquad$ Sept. 20 $\qquad$
H ave you ever applied to Teachers College? $\square$ Yes $\square$ No If yes, when?
Are you applying to a teacher certification program? $\square \mathrm{Yes} \square \mathrm{No}$ W hat would you like to teach?
Subject: $\qquad$ Grade level:ElementaryMiddle SchoolHigh School

Record of Preparation. Supply FULL information regarding ALL college preparation to date. LIST EVERY IN STITUTION in chronological order beginning with undergraduate institutions. N OTE: AN Y AND ALL undergraduate and graduate work MUST be listed. U se additional sheets if needed and be sure that your name is on any additional sheet.
FAILURE TO DISCLOSE THIS INFORMATION MAY RESULT IN THE CANCELLATION OF YOUR APPLICATION OR YOUR ADMISSION


Personal Statement. Please attach a brief typed and signed statement describing your background, your past work in your intended field of study, your plans for graduate study and a professional career.

Record of Employment. Please attach a resume or chronol ogical listing of employment and other significant activities.
In which languages do you have adequate proficiency to translate schol arly material? $\qquad$
Give the name, official position, address and phone number of the persons you have asked to write references:

| Name | Title |  | Address |
| :--- | :--- | :--- | :--- |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

Test Requirements (Please see Admissions A pplication Instructions to determine if test is required.)

| TEST | GRE | MAT | TOEFL | TWE | ALP (EPT) Columbia's A merican Language Program (English Placement Test) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Date of Test |  |  |  |  |  |
| Scores | Verbal $\qquad$ Quantitative $\qquad$ Analytical $\qquad$ <br> A dvanced Test $\qquad$ Which Test? _- $\qquad$ |  |  |  |  |

Be sure to request that official scores be sent directly to the Office of Admission. The Teachers College code for both GRE \& TOEFL is 2905.
Optional: Teachers College has undertaken to ensure equal ity of educational opportunity and to make our programs and services fair and use ful to all students. W e would appreciate your providing the following information which will be used for statistical and scholarship purposes. Date of birth: M onth $\qquad$ Day $\qquad$ Year $\qquad$ Sex $\qquad$
I belong to the following group (U.S. citizens and Permanent Residents only)
$\square$ Black/A frican-A merican
$\square N$ ative A merican/Alaskan $N$ ative (Tribal affiliation: $\qquad$ )
$\square$ Asian-A merican/Pacific Islander
$\square$ W hiteAmerican
$\square$ Latina/Latino (Identify $\qquad$ ) $\square$ Other $\qquad$

## Non-U.S. Citizens (International Applicants and U.S. Permanent Residents)

## Country of Citizenship <br> $N$ ative Language

Are you a U.S. Permanent Resident (i.e., hold a "green card")?Yes $\square$ No
Will you be attending Teachers College on a student visa?Yes

If Yes, check one:
$\square \mathrm{I}$ will apply to TC for F-1 status (I-20)
$\square$ I will apply to TC for J-1 status (IAP-66)
$\square I$ will attend TC as a J-1 student
sponsored by

If No , what visa status will you hold?

Please provide the following information and include with your application a copy of the grading/marking system (if it is not included on the record of studies) used at each university outside the U nited States that you have attended. You may also use the space below or use a separate sheet to provide additional information about the marking system at each university you have attended, the distribution of marks, or your marks in particular.

| Name of College/University | What marking scale is used? | What is the <br> passing mark? | What is the highest <br> mark obtainable? |
| :--- | :--- | :--- | :--- |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

I attest that the information provided in this application is true.

Signed
Date $\qquad$
Reminder: it is your responsibility to complete your application with all supporting material by the deadline.

## Letter of R eference

## A. To the Applicant

Please type or print your name and address and at line $B$, the name of the person you have asked to write the reference. This reference is to be used to support your application for admission to Teachers College. It will not be returned to you or forwarded to any other college, university, or place of business. This reference will N OT become a part of your permanent TC record. Once the review process is completed, the letter will be destroyed.

Applicant $\qquad$

Address $\qquad$
Department $\qquad$ A rea of Specialization $\qquad$ (T__ __ )

B: To: $\qquad$ (applicant to fill in appropriate name)

The above named person is applying for admission to Teachers College, Columbia U niversity. You are asked to comment on the academic or professional qualifications of this applicant for graduate study. The information supplied on this form will be used for admission and financial aid purposes only. We suggest that you keep a copy for your records. This letter of reference will not become part of the student's permanent record. Once the review process is completed, the letter will be destroyed. This letter will not be returned to the student or forwarded to any other college, university, or place of business. Please return this form to the applicant in the envel ope provided. Be sure that you have sealed the envel ope and signed across the seal. The applicant will then forward to this office the seal ed, signed, unopened envelope, as part of the completed application package, in the return envel ope we have provided. (Please use both sides of this form if necessary, or attach a separate sheet with your official letterhead.)

## Letter of R eference

## Teachers College R esidence H all A pplication

## Please return completed application and $\$ 20$ non-refundable application fee to: Teachers C ollege, Office of Housing and Residence Life, B ox 312, 525 West 120 Street, New York, NY 10027

Only compl ete applications a ccompanied by payment will be processed.

I plan to move in: Fall (Sept.)____ Spring (Jan.) _____ Summer A (May)____ Summer B (July) _____ of Year _____

I am: An incoming Teachers College Student $\qquad$ Current Teachers College Student $\qquad$
Please rank order your preferences for housing (e.g., $1=$ most preferred, $2=$ second most preferred, etc.). Preferences are given serious consideration but not guaranteed. Family housing applicants must be accompanied by a copy of your marriage license or Affidavit of Domestic Partnership.


Please list on a separate sheet of paper any special circumstances/accommodations which may affect your placement.
The information on this application is correct. I understand that willful misrepresentation on my part would be grounds for nonacceptance of application and/or noncontinuance in Teachers College housing.

Signature: $\qquad$ Date: $\qquad$

It is critical to keep your address up-to-date. If your address changes, please notify the Teachers College A dmissions Office immediately by letter at: Office of Admissions, Teachers College, 535 W. 120h St., B ox 302, New York, NY 10027. If your address is not current, your housing application could be adversely affected.

## Affidavit of Domestic Partnership

(Complete only if required-See Family H ousing Policy)

We, the undersigned, declare that we share a domestic partnership and a qualifying family relationship in accordance with the family housing policy of Teachers College, Columbia U niversity, and the Office of H ousing and Residence Life.

W e specifically declare the following:

1. We share a long-term relationship with each other characterized by an emotional commitment and interdependence.
2. We are each other's sol e domestic partner.
3. We are not related by a degree of kinship that would bar marriage to each other.
4. We are not married to anyone else.
5. We have shared with each other a primary residence and the common necessities of life for at least one full consecutive calendar year immediately prior to the date of our application for family housing.
6. We are both competent to enter into a license and/or contractual agreement with Teachers College and the Office of H ousing and Residence Life.
7. We agree that if our domestic partnership ends for any reason, we will immediately notify the Director of H ousing and Residence Life; that the termination of this partnership will render us ineligible to remain in or to be considered for family housing; that we will vacate the premises upon written request of the Director of H ousing and Residence Life either at the conclusion of the semester or within thirty (30) days, whichever is sooner;
and the Office of H ousing and Residence Life and/or the College are under no obligation to provide single student housing.
8. We understand that available family housing will be allocated and assigned according to rules and criteria established by Teachers College and the Office of H ousing and Residence Life. If there are more applications for family housing than available units, we understand and agree that available units will be assigned to eligible applicants under rules and criteria established by Teachers College and/or the Office of H ousing and Residence Life.
9. We understand and agree that this affidavit applies only to family housing assignments and renewals made through the current academic year, and that eligibility for subsequent family housing must be reestablished under policies then in effect. We hereby agree that if subsequent family housing policies render us ineligible to remain in or to be considered for family housing we will vacate the premises upon written request of the Director of H ousing and Residence Life either at the conclusion of the semester or within thirty (30) days, whichever is sooner.
10. We agree to comply with all terms of the residence hall agree ment and any and all rules that Teachers College and/or the Office of Housing and Residence Life may require for housing.
11. We understand that any misinformation certified to in this affidavit or provided in support of our application for family housing, will render our application and any assignment based upon it void. In such case we agree to immediately vacate the premises upon request of the Director of H ousing and Residence Life.
(Printed N ame and Signature of Teachers Col lege Student A pplicant)
(Printed $N$ ame and Signature of D omestic Partner)
(Date)

This affidavit must be notarized

N otary's Stamp:
(D ate N otarized)

A\&H 5500. Pro-seminar in arts and humanities, 111, 115, 121, 132
A\&H F 4054. Education and manpower planning, 283
A\&H F 4060. Youth cultures, 127
A\&H F 4061. Introduction to cultural studies, 127
A\&H F 4070. History of education in the United States, 124
A\&H F 4075 Visions of teachers and teaching, 124
A\&H F 4076. History of urban education, 124-125
A\&H F 4078. Technology and education in
W estern history, 125
A\&HF 4081. Philosophies of education, 126, 215-216
A\&HF 4084. Social philosophy and education, 126
A\&H F 4085. The arts and American education, 126
A\&H F 4086. Aesthetics and education, 126
A\&H F 4088. Popular culture, 127
A\&H F 4089. Aesthetics of technology, 127
A\&H F 4130. Gender and violence, 127
A\&HF 4171-4172 Religion and education in A merican culture, 125, 128
A\&HF 4180. Education and the making of the modern self, 126
A\&HF 4181. Critical theory and education, 126
A\&HF 4183. Philosophies of multiculturalism and pluralism, 126
A\&HF 4680. Ethical issues in educational practice, 126
A\&H F 4901. Research and independent study, 125-126, 128
A\&HF 5070. History and theory of higher education, 125, 283
A\&HF 5072. Student activism and student movements in historical perspective, 125
A\&H F 5075. K nowledge and human values, 125, 128
A\&H F 5080. Advanced topics in social and moral education and philosophy, 126
A\&H F 5082. The philosophy of John Dewey, 126
A\&HF 5086. Changing styles: philosophy, art and literature, 126
A\&H F 5670. Colloquium in history and education, 125
A\&HF 5680. Colloquium in philosophy and education, 126
A\&HF 5681. Colloquium in existentialism and education, 126
A\&HF 5800 History of gender and education, 125
A\&HF 5900 History of A frican American education, 125
A\&HF 6041. Historical method, 125, 130, 265
A\&H F 6042. Theories of history, 125
A\&HF 6065. Media and visual culture in formal and informal education, 127
A\&HF 6200. Field research outside the U nited States, 125
A\&H F 6574-A\&HF 6575. Seminar in the history of American education, 125

A\&H F 6577. Topics in the history of American educational thought, 125
A\&H F 6580. Seminar in philosophy and education, 126
A\&HF 6581. Seminar: Studies in religion and education, 128
A\&HF 6970. Studies in history and education, 125
A\&HF 6980. Studies in philosophy and education, 126-127
A\&HF 6981. Studies in religion and education, 128
A\&HF 7500. Dissertation seminar in philosophy and education, 126
A\&HF 7500. Dissertation seminar in philosophy and the social sciences, 125
A\&HF7500. Dissertation seminar in religion, 128
A\&HF 8900. Dissertation advisement in philosophy and education, 126
A\&HF 8900. Dissertation advisement in phil osophy and the social sciences, 125
A\&HF 8900. Dissertation advisement in religion, 128
A\&H G 4010. M odern dance I, 114
A\&H G 4011. M odern dance II, 114
A\&H G 4014. Ballet I, 114
A\&H G 4015. International dance forms, 114
A\&H G 4018. Laban movement anal ysis I, 114
A \& H G 4019. Laban movement anal ysis II, 114
A\&H G 4020. M usic for the world's children, 115, 117
A\&H G 4021. Designing musical experiences for young children, 117
A\&H G 4023. Choral methods, procedures, and materials, 117
A\&H G 4028. Practices and materials of teaching piano, 117
A\&H G 4029. Introduction to new technologies in music education, 118
A\&H G 4030. Integrating music in the classroom, 118
A\&H G 4043. Contemporary music, 119
A\&H G 4044. Interpretation of Baroque music, 119
A\&H G 4045. Popular and youth music in the curriculum, 119
A\&HG 4048. Creative computing applications in education and the arts, 112-113, 115, 118, 121
A\&H G 4050. Conducting and score reading, 119
A\&H G 4051. M usical theater in education, 118
A\&H G 4055. Class instruction in piano for nonmusic majors, 119
A\&H G 4056. Chamber music, 119
A\&H G 4057. Sight-reading at the piano, 119
A \& H G 4058. Piano ensemble, 119
A\&H G 4059-A \&H G 4060. Jazz improvisation, 119
A\&HG 4061. Printmaking I: Lithographic processes, 110
A\&H G 4062. Printmaking: Etching I, 110
A\&H G 4063. Introduction to painting, 110

A\&HG 4078. A rt for classroom teachers: Teaching art to children, 108
A\&H G 4079. Exploring Ameri ca's cultures: Implications for arts education, 108, 113, 115, 121
A\&H G 4080. Artistic development of children, 108-109
A\&HG 4081. Curriculum design in art education, 107, 109
A\&H G 4084. Art and technology, 110, 115
A\&HG 4085. Historical foundations of art education, 109
A\&HG 4086. Current issues and practices in art and art education, 109
A\&HG 4087. Processes and structures in the visual arts, 107, 109
A\&HG 4088. Artistic development: adolescence to adulthood, 107, 109
A\&HG 4089. N ew media, new forms:
Technological trends in art education, 110, 115
A\&HG 4090. M useum issues I: art museums and their culture, 109, 115
A\&HG 4092. Introduction to ceramics, 110
A\&HG 4093. Introduction to sculpture, 110
A\&HG 4094. Introduction to photography, 110
A\&HG 4096. Photography for educators, 110
A\&H G 4100. M aster's essay residency, 112
A\&HG 4150. Instrumental music instruction I, 119
A\&HG 4170. Principles and practice in arts administration, 112
A\&H G 4173. Arts in context, 112
A\&H G 4174. Law and the artsI, 112
A \& H G 4175. Law and the arts II, 112
A\&HG 4176. Support structures: devel opment and fund raising in the arts and humanities, 112
A\&H G180. Labor relations in the arts, 112
A\&HG 4201. Fieldwork in music education, 120
A\&HG 4202. Fieldwork in art education, 111
A\&HG 4203. Fieldwork in dance education, 114
A\&HG 4281. Field observations in art education, 109
A\&HG 4343. Organ instruction for non-majors, 119
A\&HG 4350. Piano instruction for non-majors, 119
A\&HG 4351. H arpsichord instruction I, 119
A\&HG 4352. Voice instruction for non-majors, 119
A\&HG 4355-A\&H G 4356. K eyboard musicianship for instrumental ists and vocalists, 119-120
A\&HG 4357-A\&H G 4358. Ensemble performance: music, 120
A\&HG 4370. Practicum in arts administration and arts education, 112
A\&H G 4470. Internship in arts administration and arts education, 112
A\&HG 4575. M aster's seminar in arts administration, 112

## Course Index

A\&H G 4576. M aster's seminar in arts administration B: research apprenticeship, 112
A\&H G 4701. Supervised teaching in music education, 118
A\&H G 4702. Supervised teaching in art education: secondary, 109
A\&H G 4703. Supervised teaching in dance education, 114
A\&H G 4722. Supervised student teaching in art education: elementary, 107, 109
A\&H G 4901. Research and independent study in music education, 120
A\&H G 4902. Research and independent study in art education, 111
A\&H G 4903. Research and independent study in dance education, 114
A\&HG 4970. Supervised individual research in arts administration and arts education, 112
A\&H G 5001. Research in arts education, 107-108, 113, 115, 118
A\&H G 5002. A ssessment strategies for the arts, $113,115,118,121$
A\&H G 5003. Introduction to music perception and cognition, 118
A\&H G 5007. Curriculum design in dance education, 114
A\&H G 5012. K inesiology for dance, 113-114
A\&H G 5013. Choreography I, 114
A\&H G 5014. Choreographic problems, 114
A\&H G 5016. Teaching dance: adolescence through adulthood, 114-115
A\&H G 5017. M ovement retraining, 114
A\&H G 5018. Dance production, 114
A\&H G 5019. Dance in cultural contexts: theory and application, 114
A\&H G 5020. Foundations of music education, 116-118
A\&H G 5021. Piano instruction for children, 118
A\&H G 5022. Young children's musical development, 118
A\&H G 5023. Vocal pedagogy I, 118
A\&H G 5024. Vocal pedagogy II, 118
A\&H G 5025. Creativity and problem-solving in music education, 118
A\&H G 5026. Music skills and the creative strategy, 116, 118
A\&H G 5029. Intermediate and advanced applications of new technologies in music education, 118
A\&H G 5030. M usic analysis, 119
A\&H G 5031. Counterpoint, 119
A\&H G 5032. Comprehensive musicianship I, 119
A\&H G 5033. Comprehensive musicianship II, 119
A\&H G 5040-A \&H G 5041. Interpretation of piano literature, 119
A\&H G 5042. Choral literature survey, 119
A\&H G 5047. Creative strategies for teaching music literature, 118
A\&HG 5050. Advanced conducting and interpretation, 119

A\&H G 5052. Vocal literature and interpretation, 120
A\&H G 5058-A\&H G 6058. Recital, 120
A\&H G 5060. Introduction to drawing, 110
A\&H G 5061. Printmaking: Lithography II, 110
A\&H G 5062. Printmaking: Etching II, 110
A\&H G 5063. Advanced painting, 110
A\&H G 5064. Experiments in content, 109
A\&H G 5081. Curriculum design in art education: Advanced, 109
A\&H G 5082. Phil osophies of art in education, 108, 113, 115, 121
A\&H G 5085. Varieties of visual experience: museums and education, 109
A\&H G 5090. M useum Issues II: missions and standards, 109, 113
A\&H G 5092. Advanced ceramics, 110
A\&H G 5093. A dvanced sculpture, 110
A\&H G 5094. A dvanced photography, 110
A\&H G 5095. Color photography, 110
A \&H G 5110. Teaching children's dance, 114-115
A\&H G 5111. Dance technique, 114
A\&H G 5120. Introduction to dance research, 114
A\&H G 5141-A\&H G 5143. Special topics in music, 117
A\&H G 5150-A\&H G 5171. Instrumental music instruction II, 120
A\&H G 5173. Principles and practice in arts administration: performing arts, 112
A\&H G 5174. Principles and practice in arts administration: visual arts, 112
A\&H G 5175. Business policy and planning for the arts manager, 112
A\&H G 5178. Special topics: critical issues in arts management, 112
A\&H G 5181. The arts in education, 107-108, 113, 115, 121
A\&H G 5201. Fieldwork in music education, 120
A\&H G 5202. Fieldwork in art education, 111
A\&H G 5203. Fieldwork in dance education, 115
A\&H G 5350. Piano instruction for music majors, 120
A\&H G 5351. H arpsichord instruction II, 120
A\&H G 5352. Voice instruction for music majors, 120
A\&H G 5353. Organ instruction for music majors, 120
A\&HG 5355. Art and technique of keyboard accompaniment, 120
A\&H G 5519. Current topics and issues in dance education, 115
A\&H G 5581. Art and contemporary culture, 108
A\&H G 5804. M useums as resource: workshops at the M etropolitan M useum, 109, 113, 115
A\&H G 5901. Research and independent study in music education, 120
A\&HG 5902. Research and independent study in art education, 111
A\&H G 5903. Research and independent study in dance education, 114

A\&H G 5921. M aster's seminar in music education, 116, 118
A\&H G 5922. M aster's seminar in art education, 109
A\&HG 6001. Teaching and administration of music in college, 116, 118
A\&HG 6002. Teaching and administration of art education in college, 109
A\&HG 6003. Critical perspectives and practices in the arts, 108
A\&HG 6021. Supervision and administration in arts education, 109, 113, 117, 121
A\&HG 6022. Piano teaching in college, 118
A\&HG 6023. The teaching of applied music in college, 118
A\&HG 6024. Piano teaching: intermediate and advanced, 118
A\&HG 6030. Composition and analysis, 119
A\&HG 6201, Section 001. Fieldwork in music education, 120
A\&HG 6201. Section 002. Fieldwork in music education: early childhood music, 120
A\&HG 6202. Fieldwork in the art education, 111
A\&H G 6421. Internship in the supervision and administration of music, 117-118, 120
A\&HG 6421. Internship in the supervision and administration of music education, 117, 120
A\&HG 6422. Internship in the supervision and administration of the art education, 111
A\&HG 6481. Internship in the teaching of college music, 120
A\&HG 6482. Internship in the teaching of college and museum programs, 111
A\&H G 6501. Doctoral seminar in music education, 120
A\&HG 6502. Doctoral seminar: Arts in education, 107-108
A\&HG 6520. Seminar in clinical supervision in the arts: $K$ through 12, 109-110
A\&HG 6580. Problems in art and education, 108
A\&HG 6901. Advanced study, 120-121
A\&HG 6902. Studio work in art and education: sculpture, 110
A\&H G 6903. Studio work in art and education: drawing, 110
A\&HG 6904. Studio work in art and education: painting, 110
A\&H G 6905. Studio work in art and education: printmaking, 110
A\&HG 6906. Studio work in art and education: ceramics, 110-111
A\&H G 6907. Studio work in art and education: photography, 111
A\&HG 6971. Research and independent study in music education, 121
A\&HG 6972. Research and independent study in art education, 111
A\&HG 6999. Exhibition rating, 111
A\&HG 7501. Dissertation seminar in music education, 121

A\&H G 7502. Dissertation seminar in the arts in education, 107-108
A\&H G 8900. Dissertation advisement in music education Section: 01., 121
A\&H G 8900.02. Dissertation advisement in art education, 108
A\&HL 4000. The study of language, 123, 149, 215-216
A\&HL 4001. Sociolinguistics and education, 122-123, 137
A\&HL 4003. Schools of linguistics, 122-123
A\&HL 4005. Semantic systems and the lexicon, 122-123, 137
A\&H L 4008. Interl anguage anal ysis, 122-123, 137
A\&H L 4014. Gender, language and education, 122-123, 137
A\&H L 4030. The study of history, 131
A\&HL 4032. Thestudy of world history and geography, 131
A\&HL 4033. History of Europe since 1914: sel ected topics, 131
A\&HL 4035. N ew York City as a learning laboratory, 131
A\&HL 4036. Theteaching of social studies, 129, 131
A\&HL 4037. East Asia: survey of modern history and culture, 131
A\&HL 4038. Thestudy of American history and geography., 131
A\&H L 4039. The U nited States Constitution, 131
A\&H L 4040. Women of the world: Issues in teaching, 131
A\&HL 4049. Spanish methods and class management, 141-142
A\&HL 4050. The study of literature, 133-134, 213
A\&H L 4051. Critical approaches to literature, 133-134
A\&HL 4052. Adolescents and literature, 133-134
A\&HL 4053. Cultural perspectives and literature, 133-134
A\&H L 4056. Feminist perspectives and literature, 133-134
A\&H L 4057. English methods, 133-135
A\&HL 4058. Teaching of reading, 133-135
A\&HL 4069. Spanish pronunciation and intonation for teachers, 141-142
A\&HL 4070. Cultural traditions and achi evements in H ispanic A merica, 142
A\&HL 4072. H umanities in the H ispanic world: Selected topics, 142
A\&HL 4076. TESO L methodologies for K-6, 137
A\&HL 4077. TESOL classroom practices, 137-138
A\&HL 4078. TESOL materials, 138
A\&HL 4080. Teaching in linguistically diverse classrooms, 122, 138
A\&HL 4085. Pedagogical English grammar, 122-123, 137-138
A\&H L 4086. Observation, 137-138

A\&H L 4087. Introduction to second language acquisition, 123, 138, 213
A\&HL 4088. Second language assessment, 122, 137, 139
A\&HL 4089. Teaching writing to ESL students, 139
A\&HL 4095. Research and independent study in TESOL, 140
A\&HL 4100. Drama and theater, 133, 135
A\&H L 4101. Phonetics and phonology, 122-123, 137, 149, 206
A\&HL 4104. Discourse anal ysis, 122-123, 137
A\&HL 4150. Teaching literacies in secondary maths, sciences and the humanities, 135
A\&HL 4151. Teaching of writing, 133-135
A\&HL 4152. Literacies and technologies in the secondary English classroom, 135
A\&HL 4154. Rhetoric, 134-135
A\&HL 4155. Critical issues in the secondary English classroom, 133, 135
A\&HL 4156. Writing: nonfiction, 135
A\&HL 4157. Writing: fiction and personal narrative, 135
A\&H L 4158. W riting: poetry, 133, 135
A\&H L 4160-A\&H L 4180. Special ized TESOL methodologies, 139
A\&HL 4171. TESOL Methodologies for 7-12, 139
A\&HL 4500. Advanced English language study, 139
A\&HL 4530. Seminar for student teachers in social studies, 129, 131
A\&HL 4550. Teaching of poetry, 133-135
A\&HL 4551. Teaching of Shakespeare, 133-135
A\&HL 4552. Curriculum and assessment in the secondary English classroom, 135
A\&HL 4561. N arrative and story, 133, 135
A\&HL 4570. Classroom strategies for teaching language minority learners, 139
A\&HL 4730. Supervised student teaching in social studies, 129, 131
A\&HL 4750. Supervised teaching of English, 135
A\&HL 4751. Fieldwork and observation on secondary English, 135
A\&H L 4760. Supervised teaching of Spanish in secondary schools, 142
A\&HL 4776. Supervised student teaching in TESOL, 139
A\&HL 4817-A\&HL 4819. Experiences in learning another language, 139
A\&HL 4860-A\&HL 4880. Special ized materials, 139
A\&HL 4901. Research and independent study: applied linguistics, 124, 139-140
A\&HL 4903. Research and independent study in social studies, 131
A\&HL 4904. Independent study in teaching of English, 135
A\&HL 4906. Research and independent study in teaching of Spanish, 142
A\&HL 4907. Research and independent study in TESO L/Applied linguistics, 124, 140

A\&HL 5030. Diversity and the social studies curriculum, 129, 131
A\&HL 5031. Teacher education in social studies, 130-131
A\&HL 5035. History of the social studies since 1880, 129-131
A\&HL 5037. Alternative models of social studies curriculum, 129-131
A\&H L 5061. Advanced Spanish syntax, 141-142
A\&HL 5062. Techniques and problems of translation (English-Spanish), 142
A\&HL 5064. The teaching of Spanish literature, 142
A\&HL 5070. Styl istics and writing in Spanish, 142
A\&HL 5085. Advanced syntax, 122-123
A\&HL 5149. Writing research: methods and assumptions, 134-135
A \&HL 5150. Research in practice, 134-135
A\&HL 5151. Perspectives on "popular" texts in English Classrooms, 135
A\&HL 5152. A cademic writing I, 123
A\&HL 5153. A cademic writing II, 123, 135
A\&HL 5201. Fieldwork in applied linguistics, 124, 140
A\&HL 5203. Fieldwork in social studies, 129, 131
A\&HL 5204. Fieldwork in teaching of English, 136
A\&HL 5205. Fieldwork in TESOL, 140
A\&HL 5206. Fieldwork in teaching of Spanish, 142
A\&HL 5207. Fieldwork in TESO L/Applied Linguistics, 124, 140
A\&HL 5223. Oral history as a multidisci plinary teaching tool, 129, 131
A\&HL 5232. Fieldwork in social studies teacher training, 129-131
A\&HL 5360-A \&HL 5379. Specialized practica for ESL teachers in the CEP, 139
A\&HL 5380. Specialized practica for ESOL teachers: in-service teaching, 139
A\&HL 5430. Internship in the teaching of history and social sciences, 131
A\&HL 5512. Research perspectives in language testing, 123
A\&HL 5514. Readers' responses: research, theory and practice, 135
A\&HL 5515. Advanced topics in applied linguistics I, 122-123, 137
A \&HL 5516. Advanced topics in applied linguistics II, 122-123, 137
A\&HL 5518. Teaching English in diverse social and cultural contexts, 135
A \&HL 5519. Instructed second language acquisition and assessment, 123
A\&HL 5530. The history of American social thought, 129-131
A\&HL 5565. A dvanced seminar in historical Romance linguistics, 142
A\&HL 5575. Research Literacy in applied linguistics and TESOL, 123, 139

## Course Index

A\&HL 5577. Language teacher education programs, 137, 139
A\&HL 5581-A\&HL 5589. Topics in second language acquisition, 123, 139
A\&HL 5590. M aster's seminar: Teaching of English, 135
A\&HL 5931. Guided investigations in the teaching of social studies, 129, 131-132
A\&HL 6011. The politics of teaching English, 134-135
A\&HL 6015. College teaching of English, 134-135
A\&HL 6030. Research in social studies education, 130, 132
A\&HL 6087. Advanced second language acquisition, 123
A\&HL 6201. Advanced fieldwork in applied linguistics, 124, 140
A\&HL 6203. Advanced fieldwork in social studies, 132
A\&HL 6204. Advanced fieldwork in teaching of English, 136
A\&HL 6205. Advanced fieldwork in TESOL, 140
A\&HL 6206. Advanced fieldwork in teaching of Spanish, 142
A\&HL 6375. Professional development seminar in TESOL, 139
A\&HL 6403. Internship in collegeteaching in social studies, 132
A\&HL 6404. Internship in collegeteaching of English, 136
A\&HL 6406. Internship in collegeteaching of Spanish, 142
A\&HL 6407. Internship in collegeteaching in TESOL/Applied Linguistics, 140
A\&HL 6450. Internship in teaching English, 134, 136
A\&HL 6500. Seminar in the history of the social studies, 130-131
A\&HL 6514. Postmodern textual theory, 135
A\&HL 6530. Curriculum development, research, and supervision, 129-131
A\&HL 6587. Seminar in second language acquisition: cross-cultural pragmatics, 123, 139
A\&HL 6935. Studies in history and in the teaching of history and social studies, 132
BBS 4032. N euroscience of human speech and language, 143, 149
BBS 4043. The human nervous system, 143, 183
BBS 4050. Applied biomedical instrumentation, 143
BBS 4065. Biological and behavioral basis of sleep, 143
BBS 5060. N euromuscular responses and adaptation to exercise, 144
BBS 5068. Brain and behavior I: Communication in the nervous system, 143, 145-146
BBS 5069. Brain and behavior I, II, 184, 188
BBS 5069. Brain and behavior II: Perception, emotion memory and cognition, 144, 183

BBS 6070. N eural basis of respiration, 144, 146
BBSQ 4030. Physiol ogic phonetics, 149, 151
BBSQ 4031. Articulatory, vocal, and auditory mechanisms, 151
BBSQ 4040. Speech and language disorders, 150-151, 183, 215-216
BBSQ 4042. Audiology, 150-152, 188
BBSQ 4045. Communication problems among the aging, 151
BBSQ 4046. Introduction to augmentative and al ternative communication, 151
BBSQ 4047. Early motor behaviors in children: normal and abnormal, 150-151
BBSQ 5041. School speech- language-hearing program, 151
BBSQ 5042. Geriatric communicology, 151
BBSQ 5044. Speech and language perception and processing, 149, 151
BBSQ 5105. A ssessment of child language, 151
BBSQ 5110. Pathologies of speech systems, 151
BBSQ 5111. A ssessment and eval uation, 151
BBSQ 5112. Articulation di sorders, 150, 152
BBSQ 5113. Voice disorders, 150, 152
BBSQ 5114. Stuttering: Theory and therapy, 150, 152
BBSQ 5115. Language disorders in children, 150, 152
BBSQ 5116. Language disorders in adults, 150, 152
BBSQ 5118. Cleft palate and speech habilitation, 152
BBSQ 5119. Alaryngeal speech, 150, 152
BBSQ 5120. Communication disorders in bilingual/bicultural children, 152
BBSQ 5125. Clinical approaches to aural habilitation of children, 152
BBSQ 5126. Clinical approaches to aural rehabilitation of adults, 152
BBSQ 5129. Audiological concepts and principles, 150, 152
BBSQ 5130. A ssessment and intervention in dysphagia, 152
BBSQ 5210-BBSQ 5212. Practicum in school speech- language pathology, 152
BBSQ 5312. Diagnostic methods and practice in speech-language pathol ogy, 152
BBSQ 5331-BBSQ 5339. Therapy Practicum, 152
BBSQ 5340-BBSQ 5343. Methods and practice in audiology, 152
BBSQ 5342. Auditory rehabilitation clinic, 152
BBSQ 5343. H earing measurement, 150, 152
BBSQ 5940. Evaluating research in speechlanguage pathology and audiology, 153
BBSQ 5941. Research needs and methods in speech-language pathol ogy and audiology, 153
BBSQ 6111. Current issues and practices in speech-language pathol ogy, 153
BBSQ 6112. N eurospeech therapy for the cerebral palsied, 153
BBSQ 6120. Current issues and practices in audiology, 153

BBSQ 6351-BBSQ 6355. Advanced practice, 153
BBSQ 6511. Seminar in supervision in speechlanguage pathology and audiology, 153
BBSQ 6512. Seminar in the practice of supervision in speech-language pathology and audiology, 153
BBSQ 6513-BBSQ 6517. Seminars in basic and applied speech science, 184
BBSQ 6520. Seminars in basic and applied hearing science, 153
BBSQ 6811. N euromuscular facilitation approaches to assessment and treatment of oral motor dysfunction, 153
BBSQ 6812. Symposium on care of the professional voice, 153
BBSQ 6940-BBSQ 6941. Supervised research in speech- language pathology and audiology, 153
BBSQ 7500. Dissertation seminar in speechlanguage pathology and audiology, 153
BBSQ 8900. Dissertation-advisement in speechlanguage pathology and audiology, 153
BBSR 4005. Applied anatomy and biomechanics, 113, 146
BBSR 4050. A nalysis of human movement, 146
BBSR 4055. N euromotor processes, 146, 184
BBSR 4060. M otor learning, 146
BBSR 4070. Introduction to the psychosocial study of human movement, 146-147
BBSR 4090. Physical fitness, weight control, and relaxation, 147
BBSR 4095. Applied physiology I, 146-147
BBSR 4151. Laboratory methods in biomechanics, 146-147
BBSR 4161. M otor learning laboratory, 147
BBSR 4195. A pplied physiology laboratory I, 146-147
BBSR 4865. Tutorials in motor learning and control, 147
BBSR 4900. Research and independent study in movement sciences and education, 147-148
BBSR 5028. M otor development, 147
BBSR 5050. N europhysiology of motor control and electromyography, 147
BBSR 5055. Bases of motor control systems, 147
BBSR 5057. M ovement disorders, 147
BBSR 5095. Exercise and health, 146-147, 202
BBSR 5098. Biochemistry of exercise, 147
BBSR 5151. Introduction to the analysis of biomechanical signals, 147
BBSR 5194. A pplied physiology laboratory II, 146-147
BBSR 5195. Advanced applied physiology laboratory, 147
BBSR 5200. Fieldwork in movement sciences, 147
BBSR 5251. Fieldwork seminar in motor learning and motor control, 147
BBSR 5504. Research training in motor learning and control, 146, 148
BBSR 5505. Tutorial in research conceptualization, 148

BBSR 5582. Research design in the movement sciences, 145-146, 148
BBSR 5595. Research seminar in applied physiology, 146, 148
BBSR 5596. Topics in applied physiology, 146-147
BBSR 5860. M ovement sciences conference, 146-147
BBSR 6201. Supervision of educational or clinical practice in the movement sciences, 147
BBSR 6562. Review and analysis of clinical literature, 147
BBSR 6563. M ovement sciences conference seminar, 147
BBSR 6564. Advanced topics in neuromotor processes, 147
BBSR 6565. Seminar in motor learning and motor control, 147
BBSR 6571. Research seminar in the psychosocial study of human movement, 147
BBSR 6900. Supervised independent research in movement sciences, 148
BBSR 7500. Dissertation seminar in movement sciences, 148
BBSR 8900. Dissertation advisement in movement sciences, 148
C\&T 4000. dis/A bility in contexts, 174
C\&T 4001. Teaching students with dis/abilities in inclusive classrooms, 174
C\&T 4002. Basic course in theory of curriculum design, 168-169, 174
C\&T 4004. Basic course in school improvement, 117, 169, 174
C\&T 4005. Principles of teaching and learning, 168-169, 175
C\&T 4020. The environments of school, 168-169, 175
C\&T 4021. N ature and needs of gifted students, 172, 175
C\&T 4022. Instructional models in the education of gifted students, 175
C\&T 4023. Differentiated curriculum for potentially gifted students, 175
C\&T 4025. Educating young potentially gifted children, 175
C\&T 4029. Creativity: its nature and nurture, 175
C\&T 4046. Introduction to learning dis/abilities, 173-175
C\&T 4047. Education of students with learning dis/abilities, 173-175
C\&T 4048. Diagnosis and remediation of math learning problems, 175
C\&T 4049. Educational accommodations and modifications for students labeled learning dis/abled, 173, 175
C\&T 4051. Supervision for elementary and secondary schools, 117, 130, 175
C\&T 4052. Designing curriculum and instruction, 117, 168-170, 175
C\&T 4078. Curriculum and teaching in urban areas, 175

C\&T 4080. N ormal and atypical development of young children, 165, 170, 175
C\&T 4081. Programs for young children with disabilities, 170, 175
C\&T 4082. Assessment of young children with exceptional ities, 170, 175-176
C\&T 4083. W orking with families of young children with disabilities, 170, 175
C\&T 4113. Early childhood methods and programs, 168-169, 175
C\&T 4114. Multicultural approaches to teaching young children, 175
C\&T 4117. Play: the roots of competence in young children, 175
C\&T 4118. Theoretical foundations of childhood education, 168-169, 172, 175
C\&T 4119. Issues and interdi sciplinary methods for working with parents of young children, 175
C\&T 4121. Early childhood teaching strategies within a social context, 168, 175
C\&T 4122. Issues in parenthood and education, 176
C\&T 4124. Curriculum development in elementary education, 176
C\&T 4130. Current issues in elementary education, 168, 176
C\&T 4132. Learning and teaching in the primary reading/ writing classroom, 176
C\&T 4133. Learning and teaching in the intermediate reading/writing classroom, 176
C\&T 4136. Methods and materials for reading instruction, 174, 176, 186
C\&T 4138z. Literacy instruction in the early and middle years, 176
C\&T 4140. Literature for younger children, 168, 176
C\&T 4141. Literature for older children, 168, 176
C\&T 4143. Social studies in the elementary and middle school, 176
C\&T 4145. The education of youth and adolescents, 117, 168, 176
C\&T 4151. Teaching of writing, 168, 176
C\&T 4159. Teacher education programs, 176
C\&T 4160. Supervision in preservice teacher education programs, 176
C\&T 4161. The teacher: professional/social/ personal context of teaching, 176
C\&T 4200. Fieldwork in curriculum and teaching, 176
C\&T 4301. Supervised practicum in the educational assessment of exceptional children, 176
C\&T 4302. Supervised practicum in the educational assessment of young children with exceptional ities, 176
C\&T 4308. Pre-student teaching practicum in early childhood special education, 170, 176
$C \& T$ 4334-C\&T 4337. M odels of teaching: practicum, 176
C\&T 4501. Teaching and learning in the multicultural classroom, 176-177

C\&T 4502. M aster's project, 168, 177
C\&T 4503. Independent study, 177
C\&T 4504. Child abuse \& substance abuse detection and reporting, 177
C\&T 4615. Young children and social policy: issues and problems, 177
C\&T 4702. Student teaching-giftedness, 177
C\&T 4705. Student teaching-learning dis/abilities, 177
C\&T 4708. Student teaching-infancy and early childhood, 177
C\&T 4726Z. Professional laboratory experiences (including full-time student teaching) in elementary education, 177
$C \& T$ 4729. Professional laboratory experiences (including student teaching) in elementary education, 177
C\&T 4731. Professional laboratory experiences (including student teaching) in elementary education, 177
C\&T 4802. M odels of curriculum and teaching, 179
C\&T 4803. Facing history, 179
C\&T 4822. Instructional models in the education of gifted students, 172, 179
C\&T 4835. Improving reading instruction, 179
C\&T 4853. M ultisensory teaching of basic language skills for students with learning disabilities, 179
C\&T 4854. Multisensory teaching of basic skills।, 179
C\&T 4855. M ultisensory teaching of basic skills II, 179
C\&T 4858. Institute: teaching of reading, 179
C\&T 4900. Research and independent study: Curriculum and teaching, 177
C\&T 4900. Section 010. Seminar in curriculum \& teaching: Learning dis/abilities, 177
C\&T 5000. Theory and inquiry in curriculum and teaching, 167, 169-173, 177
C\&T 5023. Exceptionality and intelligence: theoretical approaches, 172, 177
C\&T 5024. Planning and implementing programs for gifted students, 177
C\&T 5036. Child and family policy, 168-170, 177
C\&T 5037. Literacy, culture and the teaching of reading, 177
C\&T 5042. Special topics in children's literature, 177
C\&T 5053. Staff development processes and procedures, 117, 177
C\&T 5074. Curriculum and teaching policy, 169, 177, 294
C\&T 5112. Issues in child care and education: infancy through school age, 177-178
C\&T 5113. Influence of social factors in childhood education: developmental strategies, 178
C\&T 5114. Cognitive curriculum in early childhood education, 168-170, 178
C\&T 5118. Infant and toddler development and practice, 178

C\&T 5302. Advanced practicum-giftedness, 178
C\&T 5305. Advanced practicum-learning dis/abilities, 178
C\&T 5308. A dvanced practicum-infancy and early childhood, 178
C\&T 5321. Practicum in early childhood education: curriculum development, observation, and assessment in early childhood, 178
C\&T 5323. Supervision and the organization of programs for families with young children, 178
C\&T 5500. Development of the curriculum field, 178
C\&T 5501. Research methods in curriculum and teaching, 178
C\&T 5502. Introduction to qualitative research in curriculum and teaching, 122, 138, 178, 265
C\&T 5513-C\&T 5514. Seminar in early childhood education, 178
C\&T 5515. Infancy research seminar, 178
C\&T 5800. Institute: teaching of writing, 179
C\&T 5810. N ew approaches to identifying and educating gifted students, 172, 179
C\&T 5853. Advanced multisensory teaching of basic language skills for students with learning disabilities, 180
C\&T 5854. A dvanced multisensory teaching of basic skills I, 180
C\&T 5855. A dvanced multisensory teaching of basic skills II, 180
C\&T 5902. Independent study-giftedness, 178
C\&T 5905. Problems in special education: learning dis/abilities, 173, 178
C\&T 5908. Independent study-infancy and early childhood, 178
C\&T 5913. Independent study of infants and parents, 178
C\&T 6200-C\&T 6201. Field study in designing curriculum and instruction, 178
C\&T 6259-C\&T 6260. Fieldwork in preservice teacher education, 178
C\&T 6400. Internship program in curriculum research, 178
C\&T 6405. A dvanced internship-learning dis/abilities, 178
C\&T 6408. Advanced internship-infancy and early childhood, 178
C\&T 6452-C\&T 6453. Internship program in supervision and curriculum improvement, 178
C\&T 6501-C\&T 6502. Studies in curriculum and teaching, 178
C\&T 6503-C\&T 6504. Seminar in field research, 178
C\&T 6505. Spencer Seminar: school research and development, 178-179
C\&T 6506. Advanced seminar-giftedness, 179
C\&T 6507. Advanced seminar-learning dis/abilities, 179
C\&T 6508. Advanced seminar-infancy and early childhood, 179

C\&T 6532. Seminar in reading/language arts and related research, 179
C\&T 6533. Advanced study of children's literature, 179
C\&T 6551. Seminar in supervision and curriculum improvement, 179
C\&T 6569. Seminar in theory and research in curriculum, 179
C\&T 6900-C\&T 6901. Directed research and theory development in curriculum and teaching, 179
C\&T 6914-C\&T 6915. Advanced studies in early childhood and childhood education, 179
C\&T 7500-C\&T 7501. Dissertation seminar in curriculum and teaching, 179
C\&T 8900. Dissertation advisement in curriculum and teaching, 179
CCPJ 4061. Rehabilitation counseling: Principles and practices, 157-158
CCPJ 4062. M edical aspects of di sabilities and rehabilitation, 157-158
CCPJ 4064. Principles and methods of psychological counseling, 156-158, 184, 283, 289
CCPJ 4065. Career development of women, 157-158, 289
CCPJ 4068. Counseling women, 158
CCPJ 4160. School counseling for children and adolescents, 158
CCPJ 4165. Community agencies and resources, 158
CCPJ 4166. Current issues in gerontology, 158
CCPJ 4560. Professional and ethical issues in psychological counseling, 158
CCPJ 5020. Racism and racial identity in psychology and education, 156, 158, 289
CCPJ 5025. Group counseling, 156-157, 159
CCPJ 5060-CCPJ 5061. Assessment in counseling psychology, 158
CCPJ 5062. Career counsel ing and development, 156-158, 224, 289
CCPJ 5063. Psychological and cultural aspects of disability and rehabilitation, 158-159
CCPJ 5064. Couples and family therapy: theory and practice, 159
CCPJ 5065. Psychology of the undergraduate: issues for counseling and psychology, 159
CCPJ 5161. Counseling and normal aging, 159
CCPJ 5162. Counsel ing and psychopathology in older persons, 159
CCPJ 5164. Cross-cultural counseling and psychology, 156, 159
CCPJ 5165. Racial-cultural counseling laboratory, 157, 159
CCPJ 5167. Consultation and supervision in counseling, 159
CCPJ 5260. Fieldwork in psychological counseling and rehabilitation, 159
CCPJ 5263. Supervised fied dwork in elementary school counseling, 157, 159

CCPJ 5265. Supervised fieldwork in secondary school counseling, 157, 159
CCPJ 5360. Practicum in career and personal counseling, 157, 159
CCPJ 5361. Counseling skillsI\&II, 156-157, 159
CCPJ 5362. G roup dynamics, 160, 289
CCPJ 5363. Practicum in educational, career, and personal counseling in school settings, 160
CCPJ 5364z. Advanced practicum in cross-cultural counseling and psychotherapy, 157, 160
CCPJ 5368. Supervision and teaching of counseling, 157, 160
CCPJ 5560. Review of research in counseling psychology, 157, 160
CCPJ 5563. Special topics and issues in counseling psychology, 160
CCPJ 6260. Advanced fied dwork, 159
CCPJ 6350. Externship in counseling psychology, 157, 160
CCPJ 6360z. Practice in psychological counseling, 157, 160
CCPJ 6362. Group practicum, 157, 160, 187-188
CCPJ 6363. Advanced group practicum, 157, 160
CCPJ 6368. Advanced supervision and teaching of counseling, 157, 160
CCPJ 6460z. Internship in counseling psychology, 159
CCPJ 6560. Advanced professional issues, 157, 160
CCPJ 6569. Professional ethics and standards in psychology, 160
CCPJ 6572-CCPJ 6579. Research practicum in counseling psychology, 160
CCPJ 7502. Dissertation seminar, 157, 160
CCPJ 7572. Advanced research practicum in counseling psychol ogy, 160
CCPX 4000. Introduction to applied psychology, 162
CCPX 4010. Psychological perspectives on critical social problems, 162, 165
CCPX 4030. Psychology of adjustment, 156, 163, 165, 184, 289
CCPX 4032. A ssessment and treatment of al cohol and chemical dependency, 163, 165
CCPX 4033. Advanced clinical interventions with addicted patients and families, 163
CCPX 4035. Personality and behavior change, 156, 163, 165
CCPX 4036. Psychology of human intimacy, 163
CCPX 4038. Comparative psychotherapies, 163, 165
CCPX 4039. Critical perspectives on nontraditional psychotherapies, 163
CCPX 4120. Psychotherapy through fiction and film, 163, 165
CCPX 4121. Psychology and Shakespeare, 163
CCPX 4125. Women and mental health, 163
CCPX 4126. The mother-child matrix: developmental and clinical implications, 163
CCPX 4150. Introduction to forensic psychology ., 163, 165

CCPX 4230. Fieldwork in applied psychology, 163
CCPX 4900. Research and independent study, 165
CCPX 5022. Emotions \& health in psychological practice, 163
CCPX 5030. Ethical and professional issues in clinical psychology, 163
CCPX 5032. Personality and psychopathology, 156-157, 163, 165, 217
CCPX 5033. The evolution of Freud's psychological theories, 163
CCPX 5034. Developmental psychopathology, 156, 163, 165, 217, 289
CCPX 5036. Transference and countertransference arising from differences in age, gender, racial, ethnic, and sexual orientation backgrounds, 163
CCPX 5037. Dynamic psychotherapies, 157, 163
CCPX 5038. Cognitive, behavioral, and interpersonal therapies, 157, 163
CCPX 5039. Empirical bases of psychotherapy, 163, 165
CCPX 5045. Psychotherapy, religious diversity \& spiritual ity, 163, 165
CCPX 5048. Advanced cognitive behavioral therapy, 163
CCPX 5102. Research in psychopathology, diagnosis, and legal applications of DSM IV, 163, 165
CCPX 5110. Research apprenticeship, 165
CCPX 5230. Fieldwork in clinical psychology Autumn, Spring, 163
CCPX 5330. Principles and techniques of clinical assessment, 163
CCPX 5333. Practicum in clinical assessment, 164
CCPX 5334. Clinical assessment and research with children and adolescents, 164
CCPX 5531. Psychotherapy with children, 164-165
CCPX 5532. Clinical issues: children from diverse backgrounds, 164-165
CCPX 5533-CCPX 5534. Research methods in clinical psychol ogy, 164
CCPX 5535. Research practicum in clinical psychology, 164
CCPX 5539. Clinical assessment: the interview, 164
CCPX 5542. Psychoanalytic issues: theory and research, 164
CCPX 5544. Cross-cultural issues in psychopathology, resilience and coping, 164
CCPX 5546. Research perspectives on critical social problems, 164
CCPX 5610. Clinical psychol ogy colloquium, 164
CCPX 5630. Case conference, 157, 164
CCPX 6020. History and systems of psychology, 157, 164, 188
CCPX 6332-CCPX 6333. Supervision of assessment, intake, educational, or abuse prevention family services, 164
CCPX 6335. Practicum in clinical intervention, 164

CCPX 6336. Advanced practicum in clinical intervention, 164
CCPX 6338. Fourth-year practicum in clinical intervention, 164
CCPX 6430Z. Internship in clinical psychology, 164
CCPX 6530. Short-term dynamic psychotherapy, 164
CCPX 6531. Psychological assessment and clinical practice, 164
CCPX 6532-CCPX 6533. Advanced topics in clinical theory, research, and practice, 164
CCPX 6534. Object relations and self psychology, 164
CCPX 6536. Postdoctoral seminar in clinical psychology, 164
CCPX 6538. Advanced object relations theory, 164
CCPX 6900. Advanced research and independent study, 165
CCPX 7500. Dissertation seminar, 165
CCPX 8900. Dissertation advisement, 165
H BS 4003. Crisis intervention, 195
H BS 5551. Bioethics, 195-196
HBS 5590. Introduction to behavior analysis for applied settings, 212
HBS 6031. Single case experimental design for behavior anal ysis in education, therapy, and medicine, 212
HBSE 4000. Introduction to special education, 206, 208
HBSE 4001. Teaching students with disabilities in the general education classroom, 206, 208
HBSE 4002. Instruction and curriculum for students with and without disabilities, 208
HBSE 4005. Applications of technology in special education, 206, 208
HBSE 4006. W orking with families of children with disabilities, 208
HBSE 4008. Disability: Reconsidered and reconstructed, 208
H BSE 4010. N ature and needs of persons with mental retardation and intellectual disabilities, 208
H BSE 4011. Education of persons with mental retardation and intellectual disabilities, 208
H BSE 4012. Program and curriculum devel opment for persons who are severely/profoundly handicapped, 208
HBSE 4015. Applied behavior analysis I: Pedagogy, management, and curricula, 208-209
H BSE 4031. Education of students with physical disabilities, 206, 209
HBSE 4040. Introduction to behavioral disorders in children and young adults, 209
HBSE 4041. Education of persons with behavioral disorders, 205, 209
HBSE 4043. Applied behavior analysis II: Pedagogy, management, and curricula, 209

H BSE 4060. Psycho-social implications of vision loss on people with blindness and visual impairment and their families, 205-206, 209
HBSE 4061. Anatomy and physiology of the visual system and related implications, 205, 209
H BSE 4062. Instruction and curriculum development for infants, children and youth with blindness and visual impairment, 205, 209
HBSE 4063. Communication skills for people with blindness and visual impairments-I, 209
H BSE 4064. Communication skills for people with blindness and visual impairments-II, 209
HBSE 4070. Psychosocial and cultural aspects of people who are deaf or hard of hearing I, II, 209
HBSE 4071.I Methods of teaching reading and writing to indi viduals who are deaf or hard of hearing, 206, 209
HBSE 4072. Development of language of indi viduals who are deaf or hard of hearing I, II, 188, 206, 209
H BSE 4073. Teaching of speech to individuals who are deaf or hard of hearing, 206, 209
H BSE 4074. Linguistics of Ameri can Sign Language, 206, 209, 213
H BSE 4075. Selected topics in ASL and deaf community and culture, 213
H BSE 4076. Methods and materials in teaching American Sign Language and deaf community and culture, 213
H BSE 4078. Problems in the education of bilingual children who are deaf or hard of hearing, 209
HBSE 4079. Language development and habilitation: The foundations, 209, 213
HBSE 4082. Assessment and evaluation of infants, children and youth with exceptionalities, 205-206, 210
H BSE 4083. Theory and techniques for educating infants, children and youth with sensory impairments, 206, 210
H BSE 4092. Introduction to foundations of special education opportunity, 206-207, 210
HBSE 4300. Supervised practicum in the educational assessment of exceptional children, 170, 210
HBSE 4307. Assessment of American Sign Language and deaf community and culture, 213
H BSE 4700-H BSE 4710. Observation and student teaching in special education, 210
H BSE 4871. American Sign Language I, 188, 206, 210
H BSE 4872. American Sign Language II, 188, 206, 210
H BSE 4880. Opportunities and outcomes for people with di sabilities-annual conference, 210
HBSE 4881. Opportunities and outcomes for people with di sabilities-colloquium, 210
H BSE 5010. Study of the philosophic foundations of special education, 210

## Course Index

HBSE 5040. Behavior anal ysis: A dvanced seminar, 208, 210
HBSE 5062. Orientation and mobility, 206, 210
HBSE 5063. Technological aids and assistive devices in the education of toddlers, children and youth with disabilities, 206-207, 210
HBSE 5072. Language and communication for individuals who are deaf or hard of hearing, 210
HBSE 5300-H BSE 5314. Advanced practica in special education, 210
HBSE 5901-H BSE 5915. Problems in special education, 211
HBSE 6001. Research in special education, 211
HBSE 6002. Administration of special education programs, 207, 211
HBSE 6003. Teacher education in special education, 211
HBSE 6004. Public policy and administration in special education, 207, 211
HBSE 6010. Advanced study of problems and issues in special education, 207, 211
HBSE 6015. The verbal behavior model: Individual educational programming, 211
HBSE 6070. Psychology of deafness, 188, 208, 211
HBSE 6400-H BSE 6413. Advanced internships in special education., 211
HBSE 6500-H BSE 6510. Advanced seminars in special education., 211
HBSE 7500. Dissertation seminar in special education, 207, 211
HBSE 8901-H BSE 8910. Dissertation advisement in special education, 212
HBSE4071, II Language, reading, and writing instruction in the content areas for individuals who are deaf or hard of hearing, 206, 209
HBSK 4025. Professional and ethical functions of school psychologists, 188-189
HBSK 4072. Theory and techniques of reading assessment and intervention, 173-174, 185-189
HBSK 4073. Psychoeducational assessment and interventions, 189
HBSK 4074. Devel opment of reading comprehension strategies and study skills, 187-189
HBSK 4074. Reading comprehension strategies and study skills, 174, 185-189, 219
HBSK 4077. Adult basic literacy, 174, 185-186, 189, 219
HBSK 4085. Behavioral management in the classroom, 185, 189
HBSK 4770. Observation and student teaching: elementary education, 189
HBSK 4903. Research-independent study in reading, 185, 189
HBSK 5031. Family as a context for child development, 187-189
HBSK 5033. Human clinical neuropsychology, 165, 183-184, 188
HBSK 5070. N eural bases for language and cognitive development Section 1, 2, 184, 189

H BSK 5070. N eural bases for language and cognitive development Section 1 Section 2, 184, 189
H BSK 5072. Developmental neuropsychology, 183-184
HBSK 5085. Observing and assessing preschool children, 187-189
HBSK 5096. The psychology of memory, 184, 187, 189, 218-219
HBSK 5098. Diagnosis of reading and writing disabilities, 185, 189
HBSK 5099. Theories of cognitive processes in writing, 174, 186, 189, 216
HBSK 5139. Fundamentals of psychopharmacology, 183-184
HBSK 5271-HBSK 5273. Supervised fieldwork in remedial reading and school difficulties, 189
HBSK 5274. Fieldwork: N europsychological approaches to reading and cognitive development, 184, 188
HBSK 5280. Fieldwork in school psychological services, 189
HBSK 5320-H BSK 5321. Individual psychological testing, 184, 189
HBSK 5371. Educational neuropsychology, 183-184
H BSK 5375. Case studies of reading and cognitive development from a neuropsychol ogical perspective, 184, 189
HBSK 5376. Practicum in literacy assessment \& intervention II, 185-186, 189
HBSK 5377. Practicum in literacy assessment \& intervention III, 185-186, 189
HBSK 5575. Integrative seminar in neurosciences and education, 183-184
HBSK 5579. Special topics in psychoeducational practice, 189
HBSK 5580. Seminar in consultation and evaluation in reading, 185-186, 189-190
HBSK 6320. Practicum in college instruction, 190
HBSK 6380. Practicum in psychoeducational assessment with culturally diverse students, 187-188, 190
HBSK 6382. Advanced practicum in psychoeducational interventions in schools, 187-188, 190
HBSK 6383. N europsychological assessment of children and adults, 184, 187-188, 190
HBSK 6480. School psychologist internship, 188, 190
H BSK 6522. Seminar in cognitive processes, 190
HBSK 6570-HBSK 6578. Research in applied educational psychology, 190
HBSK 6575. Child development in the family context, 190
HBSK 6580. Advanced seminar in psychology and education, 190
HBSK 6584. Seminar in school psychology consultation, 190

HBSK 6590. Seminar in concept acquisition in young children, 190
HBSK 7503. Dissertation seminar: Schooling and Reading, 190
HBSK 8902. Dissertation advisement: Schooling and Reading, 190
HBSK 9410. Supervised internship, advanced study level, 184
H BSK 9910. Independent study, advanced study level, 184
HBSN 4001. Contemporary issues in nursing, 195-196
HBSN 4004. Historical trends in nursing, 195-196
HBSN 4005. Theories of nursing, 195
HBSN 4050. H ealth problems and issues in society, 196
HBSN 4331. Curriculum in nursing education, 195, 197
H BSN 4332. Classroom teaching in nursing, 195, 197
HBSN 5000. N ursing science, 196
H BSN 5001. The practice of nursing science, 196
HBSN 5005. Interdisciplinary theory in nursing, 196
HBSN 5022. Administrative roles of faculty, 197
HBSN 5031. Curriculum designs and issues in nursing education, 195, 197
HBSN 5040. M ethods in nursing research, 195-196
H BSN 5043. N ursing research devel opment, 196
HBSN 5230. Field experience in nursing education, 197
H BSN 5340. Practicum in archives and historical research, 196
HBSN 5530. Seminar: Clinical teaching and evaluation, 197
HBSN 5540. Seminar in Master's thesis devel opment, 196
HBSN 5541. M aster's thesis seminar in nursing, 196
H BSN 5908. Independent study in professional nursing, 195-196
H BSN 5930. Independent study in nursing education, 195, 197
HBSN 5940. M aster's advisement in nursing, 196
HBSN 6500, Research grant writing for health and behavior studies, 195-196
HBSN 6501. Seminar in professional nursing, 195-196
HBSN 6505. Theory construction in nursing, 195-196
H BSN 6507. Seminar on theory in practice, 195-196
HBSN 6530. Seminar on curriculum in nursing education, 195, 197
HBSN 6532. Advanced teaching strategies in nursing education, 195, 197
HBSN 6540. Seminar on dissertation design development, 196

HBSN 6541. Advanced seminar on di ssertation design devel opment, 196
HBSN 6600. Colloquium in nursing theory, 195-196
HBSN 6635. Colloquium in nursing education, 195, 197
HBSN 6908. Independent study in professional nursing, 195-196
HBSN 6909. Independent study in nursing theory, 195-196
HBSN 6930. Independent study in nursing education, 195, 197
HBSN 6940. Independent study in nursing research, 195, 197
HBSN 7500. Dissertation seminar in nursing, 196
HBSN 8900. Dissertation advisement in nursing, 196
HBSR 4070. Introduction to the psychosocial study of human movement, 203
HBSR 4700. Student teaching in physical education, 203
HBSR 4900. Research and independent study in movement sciences and education, 203
HBSR 5040. Curriculum designs in physical education, 203
HBSR 5041. A nal ysis of teaching in physical education, 203
HBSR 5043. Administration of physical education and athletics, 203
HBSR 5200. Fieldwork in movement sciences and education, 203
HBSR 5240. Fieldwork in curriculum and teaching in physical education, 203
HBSR 5543. Seminar in physical education, 203
HBSR 5582. Research design in movement sciences and education, 198, 203
HBSR 6340. Supervision in physical education, 203
HBSR 6540. Research seminar in curriculum and teaching in physical education, 203
HBSR 6900. Supervised independent research in movement sciences and education, 203
HBSR 7500. Dissertation seminar in movement sciences and education, 203
HBSR 8900. Dissertation advisement in movement sciences and education, 203
HBSS 4000. Introduction to nutrition: Facts, fallacies, and trends, 199
HBSS 4007. Foods and their uses, 199
HBSS 4010. Food, nutrition and behavior, 198-199, 202
HBSS 4011. W omen and weight, eating problems and body image, 199
HBSS 4013. Nutritional ecology, 191, 198, 200, 202
HBSS 4014. Community nutrition, 198, 200, 202
HBSS 4100. Introduction to heal th education, 191-193
HBSS 4102. Princi ples of epidemiology in health promotion, 191-193, 195

HBSS 4110. H ealth promotion for children and adolescents, 191, 193
H BSS 4111. Addictions and dependencies, 191, 193
HBSS 4112. Social policy and prevention, 191, 193, 294
H BSS 4113. H uman sexual ity education, 191, 193
H BSS 4114. H ealth promotion for multicultural populations, 191, 193, 195
HBSS 4115. Health promotion for aging adults, 191, 193, 195
H BSS 4116. H ealth education for teachers, 191, 193
HBSS 4117. AIDS education, 191, 193
H BSS 4118. Relapse prevention for problem behaviors, 191-193, 195
H BSS 4120. Topics in health education, 191, 193
H BSS 4121 D eath education, 193
H BSS 4122. W omen's health, 193
H BSS 4123. Violence Prevention, 191, 193
HBSS 4130. Alcohol and health, 191, 193
H BSS 4140. Developing workplace health promotion programs, 191-193, 289
H BSS 4141. Health and illness in cross-cultural perspective, 191-193
H BSS 4150. Sports nutrition, 200
HBSS 4901. Research and independent study in health education, 192, 194
H BSS 5010. Advanced nutrition I, 198, 200
H BSS 5011. Advanced nutrition II, 198, 200
H BSS 5013. Strategies for nutrition education and health behavior change, 195, 198, 200, 202
H BSS 5014. A nalysis of current literature and research in nutrition, 198, 200, 202
HBSS 5015. Assessing nutritional status and dietary behaviors, 195, 198, 200, 202
HBSS 5018. N utrition and human development, 200
H BSS 5031. N utrition administration, 200
H BSS 5034. Clinical nutrition, 198, 200, 202
H BSS 5036. N utrition counseling, 198, 200, 202
HBSS 5092. Guided study in nutrition, 201
HBSS 5110. Determinants of health behavior, 191-193, 195
H BSS 5111. Planning health education programs, 192-194
HBSS 5112. Social marketing and health communications, 194-195
H BSS 5113. Community heal th anal ysis and intervention, 194-195
HBSS 5115. Assessment and counseling for health promotion, 192, 194-195
HBSS 5231-H BSS 5233. Extended fieldwork in nutrition and education, nutrition and public health, and applied physiology and nutrition, 200
H BSS 5241-5244. Dietetic Internship in nutrition, 200
H BSS 5333. Practicum in community service, 200
H BSS 5408. Practicum in individual health advisement, 192, 194

H BSS 5410. Practicum in heal th education, 192, 194
H BSS 5510. Seminar in health education, 194
HBSS 5513. Seminar in nutrition education: Theory and applications, 200
H BSS 5593. Seminar in nutrition in exercise and sport, 200, 202
H BSS 5690. Colloquium in health promotion, 194
H BSS 5710. Supervised teaching in health education, 194
H BSS 6100. M easurement and program evaluation, 187, 192-194, 202
H BSS 6145. Heal th psychology, 192-195
H BSS 6500-H BSS 6501. Seminar in nutrition, 201
H BSS 6510. Research seminar in health education, 193-194
HBSS 6550-H BSS 6551. Research seminar in nutrition, 201
HBSS 6901. Research and independent study in heal th education, 194
H BSS 6902. Research and independent study in nutrition, 201
H BSS 7501. Dissertation seminar in heal th education, 193-194
H BSS 7502. Dissertation seminar in nutrition, 201
H BSS 8900. Dissertation advisement in health education, 193-194
H BSS 8900 Dissertation advisement in nutrition, 201
HUD 4120. M ethods of empirical research, 215-216, 218, 220-221, 223-224
HUDF 4000. Education and public policy, 226-229, 294
HUDF 4010. Sociology of online learning, 229
HUDF 4021. Sociology of education, 216, 228-229
HUDF 4022. Sociology of urban education, 228-229
HUDF 4024. Social stratification and education, 228-229
HUDF 4027. Sociology of classrooms, 229
HUDF 4028. Sociology of the life course, 229
HUDF 4029. Sociology of schools, 187-188, 229
HUDF 4030. Sociology of educational processes in formal organizations, 229
HUDF 4031. Sociology of evaluation, 229
HUDF 4032. Gender and inequal ity: The role of the school, 229
HUDF 4033. School improvement in the inner city: a sociological view, 229
HUDF 4040. American politics and education, 226-227
HUDF 4042. Comparative politics and education, 226-227
HUDF 4043. Political thought and education, 226-227
HUDF 4620. Introductory colloquium in sociol ogy of education, 229
HUDF 4903. Research and independent study, 230

HU DF 5020. M ethods of social research: Survey methods, 216, 229, 265, 289
HU DF 5021. M ethods of social research: Evaluation methods, 229, 265
HU DF 5022. Sociological anal ysis of educational systems, 229-230
HUDF 5023. The family as educator, 229-230
HUDF 5026. The family and television, 229-230
HUDF 5028. School dropouts and educational policy, 230
HUDF 5029. Sociol ogical research methods in educational settings, 230
HUDF 5030. Sociol ogical theories of education, 230
HUDF 5042. Urban politics and education, 226-227, 294
HUDF 5044. M odern political theory and education, 227
HUDF 5045. Race, ethnicity, and U.S. educational policy, 227
HUDF 5046. Education and politics in Western thought, 226-227
HUDF 5100. Supervised research and practice, 229-230
HUDF 5120-HUDF 5123. Education in community settings, 230
HUDF 5430. Internship, 227, 229, 294
HUDF 5620. Advanced colloquium in sociology of education, 230
HUDF 5621. Technology and society, 229-230
HUDF 5640. Colloquium on the politics of education, 226-227
HUDF 5642. Colloquium in political economy and education, 227
HUDF 5645-H UDF 5646. Policy seminar, 227
HUDF 6021. Social research methods: reporting, 226, 229-230, 265
HUDF 6200. Field research outside the U nited States, 230
HUDF 6520. Seminar in families and communities as educators, 230
HUDF 6525. Seminar in sociology of education, 229-230
HUDF 6534. Sociological theory in educational research, 230
HUDF 6540. Seminar in politics of education, 226-227
HUDF 6920. Studies in sociology and education, 230
HUDF 6940. Studies in politics and education, 227
HUDF 7503. Dissertation seminar, 227, 230
HUDF 8903. Dissertation advisement, 227, 230
HUDK 4010. Psychology of reading, 215-216, 218
HUDK 4015. Psychology of thinking, 215-218
HUDK 4021. Developmental psychology: infancy, 221
HUDK 4022. Developmental psychology: childhood, 156, 174, 186, 221
HUDK 4023. Developmental psychology: adol escence, 156, 174, 186, 221

HUDK 4024. Developmental psychology: adulthood and the life span, 156, 221, 283
HUDK 4027. Development of mathematical thinking, 174, 186, 215-218, 221
HUDK 4027. The development of mathematical thinking, 217, 221
HUDK 4029. H uman cognition and learning, 157, 174, 186, 215-218
HUDK 4030. Cognitive clinical interview, 221
HUDK 4035. Technology and human development, 215-216, 218
HUDK 4045. Cross-cultural psychology of teaching and learning: an in-depth look at J apan, 221
HUDK 4080. Educational psychology, 215-218
HUDK 4120. The empirical study of human development, 165, 221
HUDK 4127. Developmental psychology for educational reform, 216, 220-221
HUDK 4620. Departmental colloquium, 221
HUDK 4820. Education for thinking: goals and methods for the middle school, 221
HUDK 4901. Research and independent study, 222
HUDK 4902. Research and independent study, 219
HUDK 5020. Development of creativity, 218, 222
HUDK 5020. The development of creativity, 221-222
HUDK 5022. Emotional development, 217, 222
HUDK 5023. Cognitive development, 184, 187-188, 215-218, 220-222
HUDK 5024. Language development, 149, 184, 215-218, 222
HUDK 5027. M oral development, 222
HUDK 5029. Personality development and socialization across the life span, 157, 217, 221-222
HUDK 5034. Research methods for cognition and learning, 215-218
HUDK 5036. Child and adol escent development and social policy, 222, 294
HUDK 5039. Design of intelligent learning environments, 215-216, 218
HUDK 5040. Development and psychopathology: atypical contexts and populations, 220-222
HUDK 5080. Experimental psychology of schooling and reading, 215-216, 218
HUDK 5090. Psychology of language and reading, 149, 174, 185-186, 216-218
HUDK 5091. A pplied psycholinguistics, 149, 215-216, 218
HUDK 5092. Sociocultural factors in psychological devel opment, 222
HUDK 5121. Personality development and socialization in childhood, 220, 222
HUDK 5122. Psychological factors in later life, 159
HUDK 5123. Psychological development of women, 222

HUDK 5125. Cross-cultural devel opmental psychology, 222
HUDK 5128. Social-cognitive development, 222
HUDK 5130-HUDK 5131. Community research practicum, 222
HUDK 5197. Psychology of training in business and industry, 217-218
HUDK 5198. Psychology of instructional systems design, 215-218, 290
HUDK 5324. Research work practicum, 215-216, 219-220, 222
HUDK 5523. Seminar in adolescent development and developmental problems, 222
HUDK 6010. Developmental research methods, 222
HUDK 6036-HUDK 6037. Child and family policy, 222
HUDK 6095. Critical review of current journals in psychology, 216-218
HUDK 6520. Seminar in social and emotional development through childhood and adolescence, 222
HUDK 6522. Seminar in cognitive processes, 219
HUDK 6523. Seminar in cognitive development, 219, 222
HUDK 6524. Seminar in cross-cultural devel opmental psychology, 222
HUDK 6529. Seminar in risk, resilience and devel opmental psychology, 222
HUDK 6530. Seminar in theoretical issues in cognitive and educational psychology, 219
HUDK 6539. Research practicum in educational psychology, cognition, and learning, 217-219
HUDK 6572. Seminar in the psychology of education, 222
HUDK 6592. Advanced research seminar: Learning and instruction, 217-219
HUDK 6595. Seminar in language and reading, 219
H UDK 6598. Advanced research seminar: instructional theory, 217-219
HUDK 6620. Special topics in developmental psychology, 215-218, 221-222
HUDK 6630. Special topics in cognitive or educational psychology, 219
HUDK 6901. Advanced research and independent study, 221-222
HUDK 6902. Advanced research and independent study, 219
H UDK 7501. Dissertation seminar, 221-222
HUDK 7502. Dissertation seminar, 217-219
HUDK 8900. Dissertation advisement, 222
HUDK 8901. Dissertation advisement, 219
HUDM 4050. Introduction to measurement, 224
H U DM 4120. Basic concepts in statistics, 225
HUDM 4122. Probability and statistical inference, 225
HUDM 5055-HUDM 5056. Evaluation of institutions, programs, and curricula, 224

HUDM 5058. Choice and decision making, 215-216, 219, 224, 289
HU DM 5059. Psychological measurement, 156-157, 188, 216-217, 223-224, 289
HUDM 5122. Applied regression analysis,
156-157, 169-173, 207-208, 215-217, 223-227, 229, 267, 290
HUDM 5123. Linear models and experimental design, 215, 217, 221, 223-225
HUDM 5124. Multidimensional scaling and clustering, 224-225, 265, 267
HUDM 5250. Research practicum in measurement and eval uation, 223-225
HUDM 5550. Current issues in measurement and evaluation, 224-225
HUDM 5552. Problems and procedures in the measurement of attitudes, 225
HUDM 5553. Questionnaire construction, 225, 265
HUDM 5554. Performance and proficiency evaluation, 224-225
HUDM 6026. Statistical treatment of mass data, 224-225, 267
HUDM 6030. Multilevel and longitudinal data analysis, 223-225, 290
HUDM 6051-H UDM 6052. Psychometric Theory I and II, 225
HUDM 6055. Latent structure analysis, 223-225
HUDM 6122. Multivariate analysis I, 188, 217, 221, 223, 225, 267, 290
HUDM 6123. Multivariate analysis II, 221, 223, 225, 267, 290
HUDM 6552. Seminar: selected topics in measurement theory, 225
IN D 4033. Problems and programs in urban education, 296
ITSF 4003. A merican culture and education, 238
ITSF 4010. Cultural and social bases of education, 238
ITSF 4011. Social context of education, 238
ITSF 4012. Cross-cultural studies of learning, 238
ITSF 4014. U rban situations and education, 238
ITSF 4016. Culture and society in Africa, 238
ITSF 4017. A nthropological perspectives on homel essness and social control, 238
ITSF 4018. Anthropology and development in A frica, 238
ITSF 4034. Dynamics of family interaction, 234
ITSF 4050. Economics of education, 243
ITSF 4051. Education and economic development, 243
ITSF 4052. Education and economic growth, 243
ITSF 4054. Education and strategic planning, 234, 243
ITSF 4057. Economics of urban and minority education, 243
ITSF 4059. Education, economic growth, and competitiveness, 243
ITSF 4060 The Latino population of the U nited States, 243

ITSF 4090. Issues and institutions in international educational development, 234
ITSF 4091. Comparative education, 234
ITSF 4092. Qualitative research and eval uation in international education, 234, 265, 267
ITSF 4093. Preparation of instructional materials for developing countries, 234
ITSF 4094. Educational planning in international educational development, 234-235
ITSF 4096. Strategic planning and organizational change in international and national educational settings, 234
ITSF 4097 International and comparative studies in educational finance, 234
ITSF 4151. Special topics in the economics of education, 243
ITSF 4600. Group studies in educational issues, 244
ITSF 4603. H uman and social dimensions of peace, 235
ITSF 4611. Education for global security, 235
ITSF 4613. Fundamental concepts in peace education, 235
ITSF 4614. The United $N$ ations as peace educator, 235
ITSF 4800. International Institute on Peace Education, 235
ITSF 5000. M ethods of inquiry: ethnography and partici pant observation, 238, 265
ITSF 5001. Ethnography and participant observation: fieldwork, analysis, reporting, 238
ITSF 5002. Ethnography and participant observation: comparative and qual itative analysis, 238
ITSF 5003. Communication and culture, 234
ITSF 5005. Interdisciplinary study of the family, 234
ITSF 5010. Social organization and comparative institutions, 238
ITSF 5011. Process and change in A frica, 238
ITSF 5012. Culture and society in the Caribbean, 238-239
ITSF 5013. Psychological anthropology, 239
ITSF 5014. Symbolic anthropology, 239
ITSF 5015. Political anthropology: labor, race, and belief, 239
ITSF 5016. Ethnography of the classroom, 239
ITSF 5017. Anthropology and the law, 239
ITSF 5023. The family as educator, 234
ITSF 5026. The family and television, 234
ITSF 5120-ITSF 5123. Education in community settings, 234
ITSF 5430. Internship, 244
ITSF 5580. Postcol onial studies of education, 234
ITSF 5590. Education and the development of nations, 234
ITSF 5610. First-year colloquium in applied anthropol ogy, 239
ITSF 5611. Second-year colloquium in anthropol ogical method, 239

ITSF 5650. Readings in the economics of education, 243
ITSF 5691-ITSF 5692. Colloquium on international education and the United $N$ ations, 234
ITSF 6200. Field research outside the U nited States, 244
ITSF 6511. Seminar in psychological anthropology, 239
ITSF 6512. Social theory and structure, 239
ITSF 6513. Topics in anthropology and education: religion and politics in contemporary A frica, 239
ITSF 6514. Topics in anthropology and education: cultural analysis, 239
ITSF 6515. Topics in anthropology and education: resilience in at-risk population, 239
ITSF 6516. Topics in anthropology and education: social structure, 239
ITSF 6520. Seminar in families and communities as educators, 234-235
ITSF 6590. Doctoral seminar in international and transcultural studies, 234
ITSF 6911. W ork group in psychological anthropology, 239
ITSF 7500. Dissertation seminar in international and transcultural studies, 244
ITSF 8900. Dissertation advisement in international and transcultural studies, 244
ITSF4055. Resource allocation in education, 235, 243
ITSF4155. Education, privatization, and school choice, 235, 243
ITSF4550. W orkshop in economics and education, 243
ITSF5018. Drugs and society, 239
ITSF5020. Practicum in anthropol ogical field techniques, 239
ITSF5090. Education and Demographic Change, 234
ITSL 4011. Introduction to computers, language, and literacy, 235
ITSL 4019. Orality, literacy, and technol ogy, 235
ITSL 4020. Language and the bilingual special education child: the foundations, 240
ITSL 4021. Foundations of bilingual/bicultural education, 240, 242
ITSL 4024. Linguistic foundations of bilingual/bicultural education, 149, 240-241
ITSL 4025. Cross-cultural communication and classroom ecology, 241-242
ITSL 4026. Social and cultural dimensions of bilingual education, 241
ITSL 4027. Current topics in bilingualism and bilingual/ bicultural education, 241-242
ITSL 4028. Teaching reading in bilingual settings, 241
ITSL 4121-ITSL 4126. Bilingual/bicultural curriculum design: cognitive, linguistic, and cultural considerations, 241

ITSL 4127-ITSL 4132. Bilingual/bicultural methods and materials: criteria for design and selection, 241
ITSL 4133-ITSL 4137. Curriculum and methods for bilingual teachers, 241
ITSL 4190. Communicative practices: intercultural perspectives, 235
ITSL 4323. Practicum in bilingual/bicultural education, 241
ITSL 4720. Student teaching in bilingual/bicultural education, 241
ITSL 4801. African-American language and communication, 235
ITSL 4811-ITSL 4813. Computer based language teaching, 235
ITSL 5021. Assessment and evaluation in bilingual education, 241
ITSL 5022. Administration of bilingual programs, 241
ITSL 5023. Guidance and counseling of bilingual/bicultural children, adolescents and their families, 241
ITSL 5023. School counseling for the bilingual/bicultural child and family, 159
ITSL 5024. Bilingual/M ultilingual education: International perspectives, 241
ITSL 5201-ITSL 5207. Fieldwork, 242
ITSL 5202. Fieldwork, 242
ITSL 5511. Bilingual/multicultural educational leadership, 241
ITSL 5512. Bilingual/multicultural education program development and change theory, 241-242
ITSL 5513. Staff devel opment in multilingual/multicultural settings, 242
ITSL 5519. Research in language and literacy I, 235
ITSL 5520. Research in language and literacy II, 235
ITSL 6032. Research issues in computers, language, and literacy, 235
ITSL 6125. Research issues in communi cative practices, 235
ITSL 6201-ITSL 6207. A dvanced fiel dwork, 242
ITSL 6202. Advanced fiel dwork, 242
ITSL 6401-ITSL 6407. Internship in college teaching, 242
ITSL 6521. Seminar in bilingualism and bilingual education, 242
MSTC 4000. Science in secondary school, 261-262
MSTC 4005. Teaching mathematics in diverse cultures, 253, 256
MSTC 4019. M athematics teaching and learning: learning theories, methods, and curriculum, 253, 255
MSTC 4020. M athematics teaching and learning: historical perspectives, special students, and research, 255
MSTC 4023. M athematics for exceptional students, 256
MSTC 4025. Teaching computer mathematics, 253, 255

M STC 4026. Teaching applied mathematics, 253, 255
M STC 4031. N umber theory, 256
M STC 4032. M athematical models in the behavioral sciences, 256
M STC 4036. Discrete mathematics, 256
M STC 4037. Computer graphics, 256
M STC 4038. Finite mathematics, 256
M STC 4039. M athematical foundations of programming, 253, 256
M STC 4040. Science in childhood education, 172, 259, 261
M STC 4043. Science in the environment, 259, 261
M STC 4044. Biology methods and curriculum laboratory, 259, 261
M STC 4045. Earth and environmental science curriculum and methods laboratory, 261
M STC 4046. Chemistry curriculum and methods laboratory, 261
M STC 4047. Physical science curriculum and methods laboratory, 261
M STC 4048. Structure of physical science knowledge and curriculum design, 259, 261
M STC 4051. M odern concepts in protozoan biology, 261
M STC 4052-4053. Plant biology, 261
M STC 4054. Human anatomy and physiology, 261
M STC 4056-M STC 4057. Earth science, 261
M STC 4059. Concepts in chemistry I, 261
M STC 4060. Concepts in chemistry II, 262
M STC 4075. Concepts in physics I, 262
M STC 4076. Concepts in physics II, 262
M STC 4140. Laboratory methods and experiences for elementary school teachers, 172, 259, 261
M STC 4151. M odern principles of evolution, 262
M STC 4152. M odern concepts in genetics, 262
M STC 4153. Invertebrate biology, 262
M STC 4363. Introduction to science education practice, 262
M STC 4558. Seminar in environmental sciences for secondary and collegeteaching, 259, 262
M STC 4760. Student teaching in mathematics, 256
M STC 4761. Student teaching in science, 262
M STC 4820. Basic J ava programming I, 253, 256
M STC 4821. Basic J ava programming II, 253, 256
M STC 4827. C++ programming workshop, 253, 256
M STC 4901. Guided study in mathematics education, 257
M STC 4902. Guided study in science education, 262
M STC 5000. N eurocognitive models of information processing, 262
M STC 5010. M athematics in the elementary school, 172, 253, 255-257
M STC 5011. M athematics in the secondary school, 256-257
M STC 5012. M athematics in two- and four-year colleges, 256

M STC 5020. M athematics and multicultural education, 256
M STC 5022. M athematics curriculum devel opment, 256
M STC 5023. Problem solving, 256
M STC 5027. N umerical methods and computability, 256
M STC 5028. Pascal/data structures, 256
M STC 5029. Fundamental al gorithms, 256
M STC 5030. Topics in probability theory, 256
M STC 5031. Topics in the foundations of mathematics, 256
M STC 5032. Topics in geometry/ topology, 256
M STC 5033. Topics in algebra, 256
M STC 5034. Topics in analysis, 256
M STC 5035. M athematical models in the natural sciences, 256
M STC 5037. History of mathematics, 253, 256
M STC 5038. Topics in mathematical logic, 256
M STC 5040. Science curriculum improvement in the elementary school, 259, 261
M STC 5042. Science, technology, and society, 259, 261
M STC 5044. Selected topics and issues in science education, 262
M STC 5046. A dvanced chemistry methods and curriculum laboratory, 261
M STC 5052-M STC 5053. Biochemistry and cell biology, 184, 259, 262
M STC 5055. Electron mi croscopy, 184, 262
M STC 5056. General oceanography, 262
M STC 5057. Coastal oceanography, 262
M STC 5058. Advanced topics in earth and environmental sciences, 262
M STC 5061. Evaluation in mathematics education, 256-257
M STC 5126. M athematical foundations of statistics, 256
M STC 5152. Biochemistry and cell biology laboratory, 184, 259, 262
M STC 5264. Guided supervision of student teaching in mathematics, 257
M STC 5265. Guided supervision of student teaching in science, 262
M STC 5520. Seminar in the college teaching of mathematics, 256
M STC 5540. Seminar in college teaching of science, 261
M STC 5552. Protozoan biology seminar, 262
M STC 5800-M STC 5801. M athematics colloquium, 257
M STC 6030. Advanced topics in probability theory, 256
M STC 6033. Advanced topics in algebra, 256
M STC 6034. Advanced topics in analysis, 256
M STC 6126. Advanced topics in the mathematical foundations of statistics, 256
M STC 6400. Internship in mathematics education, 257
M STC 6401. Internship in science education, 262

MSTC 6500-M STC 6501. Research seminar in mathematics education, 257
MSTC 6502. Research seminar in science education, 262
MSTC 6901. Research and independent study in mathematics education, 257
MSTC 6902. Research and independent study in science education, 262
MSTC 7500. Dissertation seminar in mathematics education, 257
M STC 7501. Dissertation seminar in science education, 262
MSTC 8900. Dissertation advisement in mathematics education, 257
M STC 8901. Dissertation advisement in science education, 262
MSTC 9900. Research and independent study in mathematics education, 257
MSTC 9901. Research and independent study in science education, 262
MSTU 4000. Coreseminar in communication, computing and technology, 248-249
MSTU 4008. Information technol ogy and education, 215-216, 219, 248-249
MSTU 4010. Theories of communication, 248-249
M STU 4012. Film as art: Introductory, 249
MSTU 4016. The history of communication, 249
MSTU 4018. Design and communication in modern culture, 248-249
MSTU 4022. Telecommunications, distance learning, and collaborative interchange, 248-249, 267
MSTU 4023. Cinema as cross-cultural communication, 249
MSTU 4030. Computer applications in education, 250, 267, 283
MSTU 4031. Programming I, 248, 250, 267, 289
MSTU 4035. The computer as an instructional aid, 250, 267
MSTU 4036. Hypermedia and education, 215-216, 250
M STU 4037. Computers and the uses of information in education, 250
MSTU 4049. Computers and writing, 235, 248, 250
MSTU 4052. Computers, problem solving, and cooperative learning, 248, 250, 289
MSTU 4078. Technology and education in W estern history, 250
MSTU 4080. Television and video applications in education, 219, 250
MSTU 4083. Instructional design of educational technol ogy (I and II), 248, 250, 289
MSTU 4085. N ew technologies for learning, 219, 248, 250, 289
MSTU 4086. Text understanding and design, 250
MSTU 4133-4134. Cognition and computers, 218
MSTU 4133-MSTU 4134. Cognition and computers, 250

M STU 4901-M STU 4904. Research and independent study, 250
M STU 5003. Communication and culture, 248, 250
M STU 5020. Computer mediated communication, 250
M STU 5030. Intelligent computer-assisted instruction, 219, 248, 250
MSTU 5031. Programming II, 250
M STU 5191-M STU 5192. Educational video production I and II, 250
M STU 5194. Model of interactive learning, 219, 250
M STU 5201-M STU 5204. Fieldwork, 250
M STU 5510. Topical seminar, 248, 251
M STU 5555. Technology and the emergence of a global curriculum, 248, 251
M STU 5814. W ork conference, 251
M STU 6030. Eval uating technology in education, 251
M STU 6031. Multimedia educational applications in software development, 251
M STU 6201-MSTU 6204. Advanced fieldwork, 251
MSTU 6401-MSTU 6404. Internship, 251
M STU 6532. Seminar in cognitive science, 252
M STU 6600. Colloquium in Communication, Computing, and Technology in Education, 252
M STU 6901-M STU 6904. Research and independent study in Communication, Computing, and Technology in Education, 252
M STU 7501-MSTU 7504. Dissertation seminar, 252
M STU 8900. Dissertation advisement, 252
M STU 4024. Television and the development of youth, 250
ORL 4003. Crisis intervention, 284-285
ORL 4009. U nderstanding behavioral research, 263-264
ORL 4011. Personnel management in healthcare, 267, 284-285
ORL 4014. Legal issues in healthcare organizations, 268, 285
ORL 4054. Leadership and management in heal thcare organizations, 267, 285
ORL 5000. M ethods of inquiry: Ethnography and participant observation, 263, 265, 267, 289
ORL 5002. Ethnography and participant observation: Comparative and qual itative analysis, 263, 265
ORL 5362. Group dynamics: A systems perspective, 292
ORL 5521. Introduction to research methods in education, 263, 267, 275, 281
ORL 5551. Ethics for heal thcare professionals, 268, 285
ORL 6500. Qual itative research methods in organizations: Design and data collection, 264
ORL 6501. Qual itative research methods in organizations: Data analysis and reporting, 264

ORL 6518. M ethods of case study and analysis, 264, 275
ORLA 4001. Overview of administration, 117, 207, 275
ORLA 4010. Introduction to organization and change theory in education, 277, 283
ORLA 4011. Behavior in organizations, 277, 289
ORLA 4021. Introduction to management systems, 207, 277
ORLA 4022. Introduction to management systems-lab, 278
ORLA 4025. School business administration, 278
ORLA 4030. Ethical Issues in educational leadership, 226-227, 277
ORLA 4031. Leadership and institutional analysis: Early childhood education administration, 276
ORLA 4033. Leadership and institutional analysis: Administration of secondary schools, 276
ORLA 4038-ORLA 4039. Leadership and institutional analysis: Administration of elementary schools, 276
ORLA 4040. Education policy decision making, 226-227, 278, 294
ORLA 4042. The rol e of the state in education governance, policy and practice, 207, 226-227, 278
ORLA 4044 Transforming schools, 276
ORLA 4045. Restructuring schooling in urban environments, 276
ORLA 4046. School finance: Policy and practice, 235, 278, 289, 294
ORLA 4047. Political policy analysis in education, 278
ORLA 4055. Economic concepts, the administration of educational institutions and policies, 278
ORLA 4058. Privatization and choice in education, 279
ORLA 4060. Designing Charter Schools, 276
ORLA 4062. School business administration: N onpublic schools, 278
ORLA 4070. The institutional anal ysis of private schools, 276-277
ORLA 4071. The administration of private schools, 277
ORLA 4086. Law and educational institutions: Issues of authority, religion, free speech, and safety, 226, 279, 294-295
ORLA 4820. Summer institute in management systems, 278
ORLA 4874. Strategic marketing for academic institutions, 278
ORLA 4876. School finance: Resource allocation for nonprofit organizations, 278
ORLA 4900. Research and independent study in educational administration, 275
ORLA 5012. Community politics, community policies, and administrators, 226-227, 277
ORLA 5016. Law and educational institutions: Equity issues, 277, 294-295

## Course Index

ORLA 5017. Groups and interpersonal behavior, 267, 277
ORLA 5017. Organizations and interpersonal behavior, 283
ORLA 5018. Understanding authority and exercising leadership, 277, 289
ORLA 5020. Information systems for decision making in learning organizations, 278
ORLA 5021. M anagement science, 278
ORLA 5025. Ecology of educational planning and management, 278
ORLA 5027. School fund accounting, 278
ORLA 5046. School finance: Resource allocation, 279
ORLA 5049. Program leadership in multicultural settings, 277
ORLA 5050. Program leadership: G rants funding workshop, 278
ORLA 5051. Program leadership: Cases, 275
ORLA 5052. Program leadership, 277
ORLA 5054. Program leadership: Advanced cases and concepts, 277
ORLA 5055. School administration and cultural diversity, 277
ORLA 5087. Law and educational institutions: college operation; private school operation, 295
ORLA 5530. Action research in organizational behavior, 277, 289
ORLA 5532. Leadership and institutional analysis: The community and program devel opment, 277
ORLA 5541. Federal politics, federal policies, and administrators, 226-227, 279
ORLA 5544. Current topics in policy analysis for administrators, 226, 279
ORLA 5587. Klingenstein seminar for independent school educators, 277
ORLA 5645-ORLA 5647. Topics in policy planning and implementation:, 279
ORLA 5689. Klingenstein colloquium: Visiting fellows, 276
ORLA 5820. Principals W ork Conference, 277
ORLA 5830. The K lingenstein summer institute, 275
ORLA 6018. Staff personnel administration, 117, 277
ORLA 6019. Labor management relations in education, 278
ORLA 6020. Seminar in management systems, 278
ORLA 6211-ORLA 6241. Clinical projects in educational administration:, 275
ORLA 6460 (Fall) and ORLA 6461 (Spring). Internship in Organization and Leadership, 275
ORLA 6500. Program leadership: Design and evaluation, 276
ORLA 6540. Topics in urban education policy, 279
ORLA 6542. History and politics of urban school reform, 279
ORLA 6552. Behavioral analysis of leadership, 277
ORLA 6610. Colloquium in managerial behavior, 277

ORLA 6611. Colloquium: Organizational behavior, 276
ORLA 6621. Colloquium: Management science, 276
ORLA 6631. Colloquium: Institutional anal ysis, 276
ORLA 6641. Colloquium: Policy analysis and action, 276
ORLA 6900. Research and independent study in educational administration. Special individualized work. Permission required., 276
ORLA 7500. Dissertation seminar in educational administration, 276
ORLA 7501 and ORLA 7503. Research seminar, 276
ORLA 7570. Research in administration, 276
ORLA 7573. Advanced seminar, 276
ORLA 8900. Dissertation advisement in educational administration, 276
ORLA 9900. Research and independent study in educational administration for post-docs only., 276
ORLD 4010. Purposes and policies of higher education, 281
ORLD 4011. Curriculum and instruction in higher education, 281
ORLD 4012. The community college, 281
ORLD 4020. College and university organization and administration, 281
ORLD 4022. College personnel policies and practices, 281
ORLD 4030. The economics of post-secondary education, 244, 281
ORLD 4031. Financial administration of higher education institutions, 235, 244, 281
ORLD 4040. The A merican collegestudent, 142, 281
ORLD 4041. Student personnel administration: Organization, functions, and issues, 281
ORLD 4042. Student personnel administration: Programs and services, 281
ORLD 4043. Developmental academic advisement programs in colleges and universities, 281
ORLD 4050. Introduction to adult and continuing education, 268
ORLD 4051. How adults learn, 142, 267, 269, 282, 289
ORLD 4052. Program development: Assessing learning needs and evaluating outcomes, 267-269, 289
ORLD 4053. Facilitating adult learning, 142, 267, 269, 290
ORLD 4054. Adult literacy: Critiquing theory and practice, 269
ORLD 4500. Special topics in higher and adult education, 235, 269, 282
ORLD 4800. W orkshop in higher and adult education, 269, 282
ORLD 4815. Developing critical thinkers, 269
ORLD 4820. Cultural diversity training in higher education settings: Issues and concerns, 282

ORLD 4830. Transforming the curriculum: Theory and practice, 282
ORLD 4844. Helping adults learn, 269
ORLD 4845. Diversity: Implications for recruitment and retention, 282
ORLD 4900. Research and independent study in higher and adult education, 270, 283
ORLD 5011. College teaching and learning, 282
ORLD 5021. Patterns of organization and management in higher education, 282
ORLD 5022. The issue of quality in postsecondary education, 282
ORLD 5044. Theories of diversity and higher education, 282
ORLD 5045. The Multicultural self in higher education, 282
ORLD 5053. Developing and managing adult learning programs, 268-269
ORLD 5055. Staff devel opment and training, 267, 269, 289-290
ORLD 5056. Adult education social action, 269, 290
ORLD 5057. A dult learning and education: theory and practice, 267, 269, 290
ORLD 5061. The learning organization, 267, 269
ORLD 5065. The learning society, 267-269
ORLD 5241-ORLD 5242. Observation and supervised fieldwork in student personnel administration, 282
ORLD 5522-ORLD 5528. Advanced professional seminar, 282
ORLD 5531-ORLD 5537. Advanced professional skills, 282
ORLD 5819. W orkplace Learning InstituteTowards a learning organization: The social dimensions of large-scal echange*****
ORLD 5900. Research in higher and adult education, 270, 283
ORLD 6241. Advanced fieldwork in student personnel administration, 283
ORLD 6511. Coordinating seminar in higher education, 283
ORLD 6520-ORLD 6521. Advanced seminar in the community college, 283
ORLD 6550-ORLD 6551. Advanced seminar in higher and adult education, 269
ORLD 6550-ORLD 6551. Advanced seminar in higher education, 269, 283
ORLD 6551. Higher education and the law, 294-295
ORLD 6552. Advanced seminar in theories of intellectual and ethical development for college students, 283
ORLD 6556. Educational leadership: Research, art and practice, 283
ORLD 6557-6558. Research practices in higher and adult education, 270, 283
ORLD 6900. Research and independent study in higher and adult education, 270, 283

ORLD 7500. Directed dissertation proposal seminar, 270, 283
ORLD 7500. Dissertation seminar in higher and adult education, 269, 283
ORLD 7900. Directed dissertation proposal seminar, 270, 283
ORLD 8900. Dissertation advisement in higher and adult education, 270, 283
ORLD 9900. Research and independent study in higher and adult education, 283
ORLD 5054. Strategy development as a learning process in organizations, 269
ORLD 5062. H uman resource development in organizations, 269
ORLJ 4002. Functions of organizations, 289, 291
ORLJ 4005. Organizational psychology, 215-216, 267, 289, 291
ORLJ 4009. Understanding behavioral research, 156, 267, 289, 291
ORLJ 4901. Research and independent study in social-organizational psychology, 293
ORLJ 5003. H uman resource management, 267, 289, 291
ORLJ 5005. Leadership, 267, 289-291
ORLJ 5012, 5016, 5020. Special topics in organizational psychology, 291
ORLJ 5012. Organizational internship, 291
ORLJ 5013. N egotiations in organizations, 289, 291
ORLJ 5014. Organizational dynamics and theory, 267, 289-291
ORLJ 5015. Executive sel ection and management, 291
ORLJ 5016. Advanced functions of organizations, 291
ORLJ 5016. Motivation and reward systems, 291
ORLJ 5017. Small group intervention: Theory and method, 267, 291-292
ORLJ 5018. Using survey research in organizational consulting, 292
ORLJ 5019. Multirater feedback, 292
ORLJ 5020. Preparation for coaching, 289-291
ORLJ 5040-ORLJ 5041. Research methods in social psychology, 292
ORLJ 5106. Psychological aspects of organizations, 289, 292
ORLJ 5147. Conflict resolution in early childhood settings, 292, 294
ORLJ 5340. Basic practicum in conflict resolution, 235, 289, 292, 294
ORLJ 5340. Basic practicum in conflict resolution and mediation skills, 235, 289
ORLJ 5540-ORLJ 5541. Proseminar in social and organizational psychology, 292
ORLJ 6040. Fundamentals of cooperation, conflict resolution and mediation in different institutional contexts, 292
ORLJ 6045. Demography in Organizations, 292
ORLJ 6244. Fieldwork in organization consulting, 292

ORLJ 6343. Practicum in change and consultation in organizations, 289-290, 292
ORLJ 6344-ORLJ 6349. Research practicum in social-organizational psychol ogy, 292
ORLJ 6350. Section I: Advanced practicum in conflict resolution, 292
Section II: Advanced practicum in conflict resolution: Designing conflict management systems, 292
ORLJ 6542. Directed research in socialorganizational psychol ogy, 293
ORLJ 6640. Social-organizational psychology colloquium, 291, 293
ORLJ 6901. Advanced research and independent study in social-organizational psychol ogy, 293
ORLJ 7501. Dissertation seminar, 293
ORLJ 8900. Dissertation advisement in socialorganizational psychology, 293
ORLN 4001. Contemporary issues in nursing, 286
ORLN 4004. H istorical trends in nursing, 286
ORLN 4005. Theories of nursing, 284-285
ORLN 4013. Fiscal management of the nursing organization, 268, 284, 287
ORLN 4050. H ealth problems and issues in society, 284, 286
ORLN 5000. N ursing science, 284-285
ORLN 5005. Interdisciplinary theory in nursing, 285
ORLN 5010. Administration of a nursing organization, 284, 287
ORLN 5011. Designing, planning, and monitoring the nursing care system, 287
ORLN 5013. Informatics in nursing, 267, 284, 286
ORLN 5040. M ethods in nursing research, 284, 286
ORLN 5043. N ursing research development, 285-286
ORLN 5212. Fieldwork in executive nursing management, 287
ORLN 5340. Practicum in archives and historical research, 286
ORLN 5530. Seminar: Clinical teaching and evaluation, 268, 284, 286
ORLN 5540. Seminar in master's thesis development, 286
ORLN 5541. Master's thesis seminar in nursing, 286
ORLN 5908. Independent study in professional nursing, 286
ORLN 5910. Independent study in nursing administration, 287
ORLN 5940. M aster's advisement in nursing, 286
ORLN 6014. M anaging the socially responsible organization, 268, 285-286
ORLN 6212. Advanced study in nursing administration, 287
ORLN 6501. Seminar in professional nursing, 286
ORLN 6511. Innovations in nursing management, 268, 287

ORLN 6514. Marketing nursing programs and services, 268, 287
ORLN 6521. Legal aspects of nursing education, 287
ORLN 6522. Policy formation and governance in heal thcare, 268, 286
ORLN 6540. Dissertation design development, 285-286
ORLN 6541. Advanced dissertation design devel opment, 285-286
ORLN 6600. Colloquium in nursing theory, 285
ORLN 6615. Colloquium in nursing administration, 284-285, 287
ORLN 6625. Colloquium in nursing education organization, 287
ORLN 6635. Colloquium in nursing education, 286
ORLN 6908. Independent study in professional nursing, 286
ORLN 6909. Independent study in nursing theory, 285
ORLN 6910. Independent study in nursing administration, 287
ORLN 6920. Independent study in nursing education organization, 287
ORLN 6930. Independent study in nursing education, 287
ORLN 6940. Independent study in nursing research, 286
ORLN 7500. Dissertation seminar in nursing, 286
ORLN 8900. Dissertation advisement in nursing, 286
ORLN 7900. Directed Dissertation Research, 286

Abeles, H arold F., 41, 64, 105, 115
Albright, J ames, 64, 105
Allegrante, John P., 42, 64, 181, 226
Anderson, Gregory M., 64, 263
Anderson, O. Roger, 64, 245, 257, 261
Bailey, Darlyne, 10, 64, 263
Bail ley, Thomas R., 19, 31, 45, 48, 64, 231, 242
Baldwin, W illiam J., 65, 263, 296
Barton, A ngela Cal abrese, 65, 245, 261, 274
Basch, Charles E., 17, 65, 181, 190-191
Beebe, Leslie M., 65, 105, 121
Bereson, Ruth Michele, 65, 105
Black, J ohn B., 65, 214, 245
Block, Caryn J., 65, 263, 287
Bonanno, George A., 65-66, 154
Bond, George C., 66, 231
Borland, J ames H., 6, 32, 66, 166, 168, 172
Brandenburg, Judith Berman, 66, 154
Brassard, M arla R., 66, 181
Brooks-Gunn, J eanne, 13, 31, 44, 66, 214, 226, 295
Broughton, John M., 66, 105
Burke, W. W arner, 66-67, 263
Burton, Judith M., 22, 41, 67, 105-106, 113
Calkins, Lucy McCormick, 12, 29, 53, 67, 166, 168
Carter, R obert T., 67, 154
Chatterji, M adhabi, 67, 214
Coleman, Peter T., 30, 49, 67, 263
Comitas, Lambros, 68, 231, 236
Constantine, M adonna G., 68, 154
Contento, I sobel, 68, 181, 201
Corter, J ames E., 68, 214
Crocco, M argaret Smith, 15, 68, 105, 128
Custodero, Lori A., 68-69, 105
Cyr, Leo-Paul, 69, 105
DeCarlo, Lawrence T., 69, 214, 223
DeM eersman, R onald E., 69, 143-144, 201
Dougherty, K evin J., 69, 263
Farber, Barry A., 7, 69, 154, 160
Fernandez, Clea, 69-70, 214
Ferri, Beth A., 70, 166, 173
Franklin, V.P., 70, 105
Genishi, Celia, 70, 166, 169, 295
Genor, Michelle, 70, 166
Gentile, Antoinette M., 70, 143

Ginsburg, H erbert P., 14, 70, 214, 245
Goodwin, A. Lin, 70-71, 166, 171
Gordon, Andrew, 71, 143
Gordon, Peter, 71, 143
Greer, R. Douglas, 71, 181, 204
H amilton, Gregory W., 71, 105
H ansen, David Torrey, 71, 105, 125
Han, Zhao H ong, 71-72, 105
H arrington, Charles C., 72, 231, 263, 274
Heubert, Jay P., 12, 28, 72, 226, 263, 274, 295
Hickson, Linda, 16, 42-43, 72, 181, 204
Higgins, Christopher R., 72, 105
H owes, Elaine Virginia, 72-73, 245
K ane, Pearl Rock, 50, 73, 226, 263, 271-275
K arp, Alexander P., 73
K iefer, Barbara, 73, 166, 168
K leifgen, J oA nne, 73, 231, 245, 295
K nefelkamp, L. Lee, 73, 263
K night, Michelle G., 73-74, 166, 168
K retschmer, Robert E., 9, 74, 181, 204, 212
K uhn, Deanna, 74, 214
K ushi, Lawrence H aruo, 41, 74, 181, 197
Lapidus, Leah B., 74, 154
Leichter, H ope J ensen, 45, 74, 231, 295
Lesko, N ancy, 74, 166, 168
Levin, H enry M., 14, 52, 75, 231, 263
Levine, Arthur E., 1-2, 10, 14, 75, 263
Luthar, Suniya S., 3, 75, 214, 219-220, 226
Marsick, Victoria J., 41, 46, 75, 263, 264, 295
M asullo, Susan Garni, 75, 181
Mateika, Jason H., 75-76, 143-144
McClintock, Robert 0., 31, 47, 76, 225, 245
Midlarsky, Elizabeth, 76, 154, 165
Miller, J anet L., 76, 105, 132
Miller, Lisa, 16, 76, 154
Mithaug, Dennis E., 76, 181, 203-204, 226
M onroe, Jane A., 76, 214, 223
N atriello, Gary, 15-16, 76-77, 214, 225-226, 228, 294
N eumann, Anna, 48, 77, 263, 279
N oumair, Debra A., 43, 77, 263
O'Connell, K athleen A., 77, 181, 194
O'M alley, H onor, 77, 143
Orr, M argaret Terry, 77, 226, 263

Ostroff, Cheri, 77-78, 263
Oyler, Celia, 78, 166
Pallas, A aron, 78, 214
Patel, Rupal, 78, 143
Perin, Dolores, 78, 174, 181, 185-186
Perry, Elissa L., 78, 263
Petrides, Lisa A., 79, 263
Peverly, Stephen T., 79, 181, 186
Pogonowski, Lenore, 79, 105
Purpura, James E., 23, 79, 105, 136
Raskin, Patricia M., 79, 263
Recchia, Susan L., 44, 79-80, 166, 170, 295
Reid, D. Kim, 80, 166, 173, 174, 186
Richards, Craig E., 4, 80, 226, 263, 294
Rigolosi, Elaine L., 48, 80, 263, 284
Rivera-Batiz, Francisco L., 80, 231
Sabatini, Anne, 80, 166
Saxman, John, 81, 143, 148
Schoonmaker, Frances, 21, 81, 166, 171
Sheppard, K eith, 81, 245, 258, 261
Shipps, D orothy, 28, 81, 226, 263, 272-273
Siegel, M arjorie, 52, 81, 166, 168
Sil verman, Stephen J., 81, 181, 202
Sobol, Thomas, 25, 82, 226, 263, 270-272, 274-275
Steiner-K hamsi, Gita, 20-21, 82, 226, 231
Sue, Derald Wing, 82, 154
Sullivan, Graeme L., 82, 105
Taylor, R obert P., 82, 245
Thornton, Stephen J., 82, 105
Torres-Guzman, M aria Emilia, 83, 231, 239
Tsang, Mun C., 26, 41, 48, 83, 231
Varenne, H ervé, 83, 231, 245, 295
Vavrus, Frances K., 83, 231
Vinz, Ruth, 83, 105
Vogeli, Bruce R., 83, 245, 252
Waite, Cally L., 15, 83, 105, 124
W allace, Barbara C., 83, 181, 226, 295
W alsh, Francis Timothy, 84, 105
W ells, Amy Stuart, 26-27, 84
W estaby, J ames D., 84, 263
W hitford, Betty Lou, 51, 84, 166, 168
W illiams, J oanna P., 84, 214
Williams, Leslie R., 84, 166, 168
Wolf, R andi L., 84
Yeh, Christine J., 85, 154
Yorks, Lyle, 85, 263
Zumwalt, K aren K epler, 16, 85, 166, 168

A cademic Calendar, 37-39
A cademic Discipline, 231-233, 306
Accelerated Schools Project, 19
Additional Programs/Options, 294-296
Administration of Special Education, 181-182, 203, 207, 211
Admissions A pplication Deadlines, 103-104
Admission A pplication Information, 312-313
Adult and Continuing Education, 85, 94-95, 97, 103-104, 240, 266, 268
American Sign Language as a Foreign Language, 104, 181-182, 212
Anthropology and Education, 10, 68, 72, 127, 231, 236-237, 239-240
Applications Admissions, 321-324 Residence H alls, 325-326
Applied Anthropology, 10, 104, 231, 236-237, 239
Applied Behavioral Analysis (see Behavioral Disorders)
Applied Educational Psychology, 9, 53, 181-182, 185, 190, 214
Applied Linguistics, 7, 65, 72, 79, 87, 103, 105, 121-124, 135-140, 212, 219, 240
A pplied Physiology, 69, 76, 87, 96, 104, 143-148, 151, 181-182, 190, 197-202
Applied Physiology and Nutrition, 104, 144, 181-182, 190, 197-202
Art and Art Education, 22, 41, 59, 67, 86, 97, 104-111, 126
Arts, 106
Arts Administration, 7, 22, 65, 86-87, 103, 105-109, 111-112, 327
Behavioral Disorders, 181-182, 204-207, 209-212
Bilingual/Bicultural Education, 10, 83, 104, 149, 213, 231-232, 239-242, 316
Blindness and Visual Impairment, 93, 181-182, 204-212
Career Services, 61-62
Centers and Institutes, 6, 8, 29, 32, 245 Center for Adult Education, 41 Arts Center for Education Research, 7, 22, 41, 107 Community College Research Center, 19, 31, 45, 49, 69
International Center for Cooperation and Conflict Resolution, 11, 30, 49, 67, 291, 294 Institute on Education and Government, 52 Institute on Education and the Economy, 10, 31, 45, 48 Center for Educational and Psychological Services, 56, 160-161, 164, 176, 204, 210 Center for Educational Outreach and Innovation, 24, 44, 275, 294, 304 Center for H ealth Promotion, 9, 41-42, 190 Hechinger Institute on Education and the Media, 24, 45 Institute of Higher Education, 11 Center for Infants and Parents, 52, 63, 176, 295 Institute of International Studies, 10, 48, 73 Esther A. and J oseph K lingenstein Center for Independent School Education, 49-51, 271-273 Institute for Learning Technologies, 10, 18, 31, 46, 73, 76, 246
Center for Opportunities and Outcomes for People with Disabilities, 9, 42-43, 204-205, 210

The Teachers College Reading and Writing Project, 30, 53
Institute of Research and Service in N ursing Education, 11, 48
N ational Center for Restructuring Education, Schools and Teaching (N CREST), 8, 51
Center for Social Imagination, the Arts and Education, 7, 44
Speech-Language and H earing Center, Edward D. Mysak, 7, 57, 143, 151

Student Life Center, 38-39, 62-63
Hollingworth Center for the Study and
Education of the Gifted, 8, 32
Elbenwood Center for the Study of the Family as Educator, 10, 45, 74, 295
Center for the Study of the Spiritual Foundations of Education, 7
Center for Technology and School Change, 10, 44, 246
Center for Toddlers and Parents, 8, 176
Institute for Urban and Minority Education, 32, 47, 296
Center for Young Children and Families, 9, 31, 295
Certification of Part-Time/Full-Time Attendance, 301
Change in Registration and W ithdrawal, 301
Clinical Psychology, 6-7, 65-66, 68-69, 74, 76-77, 82, 85, 87, 103-104, 154-165, 175, 184, 189, 220, 283, 327
Cognitive Studies in Education, 9, 103-104, 214, 220
Columbia University Library System, 54
Communications and Education, 10, 195
Comparative and International
Education/International Educational Devel opment, 231-232, 234
Computing and Education, 10, 65, 82, 93-94, 232, 245-249, 255-256
Computing and Information Services (CIS), 55
Conflict Resolution, 11, 18, 30, 49, 67, 208, 231-233, 235, 268, 277, 281, 288-292, 294
Counseling Psychology, 7, 33, 68, 103, 154-160, 163-164, 183-184, 204, 219, 223, 240, 288
Continuing Education (see Center for Educational Outreach and Innovation)
Course N umbering, 100
Cross Categorical Studies, 204
Curriculum and Teaching, 6, 8, 21, 32, 46, 53, 56, 59-60, 66-67, 70, 73-74, 78-81, 84-85, 91, 103, 113, 117, 126-127, 131, 166-181, 202-203, 208, 220, 223-224, 226, 231-232, 240, 265, 294, 296
Dance and Dance Education, 7, 22, 105-106, 113-115, 146
Deaf or $H$ ard of $H$ earing, $9,182,188,205-206$, 208-210, 213
Degree Requirements, 2, 22, 38-39, 51, 60, 107, 111-113, 115-116, 121, 124, 126-128, 133-134, 137, 141, 144, 146, 149, 155-156, 158, 161, 165, 168-174, 182, 185-187, 191, 195, 198-199, 201-202, 205, 212, 215, 220-221, 223, 226-228, 233, 236, 240, 247, 249, 253, 255, 260, 264, 267, 271-275, 281, 284, 288, 297-301, 306, 309, 314
Department of:
Arts and H umanities, 6, 44, 59, 64-72, 79, 82-83, 86, 105-142, 233, 283 Biobehavioral Studies, 6-7, 59, 69-71, 75, 77-78, 81, 87, 143-153, 181, 202

Counseling and Clinical Psychology, 6-7, $65-66,68-69,74,76,82,85,87,154-165$, 189, 204, 283
Curriculum and Teaching, 6, 8, 21, 32, 46, 53,
56, 59-60, 66-67, 70, 73-74, 78-81, 84-85,
91, 103, 113, 117, 126-127, 131, 166-181,
202-203, 208, 220, 223-224, 226, 231-232,
240, 265, 294, 296
Health and Behavior Studies, 9, 42, 59, 64-66, 68, 71-72, 74, 76-79, 81, 83-84, 91, 104, 144, 166, 174, 181-213
Human Development, 3, 6, 9, 41, 65-72,
74-76, 78, 84, 93, 115, 155-156, 165, 174, 183, 186, 195, 200, 213-230, 283, 294
International and Transcultural Studies, 6, 9-10, 19, 45, 48, 52, 64, 68, 73-75, 80, 82-83, 93, 231-244
M athematics, Science, and Technology, 6, 10, 27, 59, 64, 66, 72-73, 76, 81-83, 93, 136, 233, 245-262, 283
Organization and Leadership, 6, 11, 49, 64-67, 69, 72-73, 75, 77-82, 84-85, 94, 195, 231, 233, 263-294
Developmental Psychology, 9, 41, 76, 80, 103-104, 126, 156, 161, 174, 183-184, 186-187, 189-190, 213-223, 283
Disability Services (see Office of A ccess and Services for Individuals with Disabilities)
Early Childhood Education, 8, 17, 69-70, 84, 103-104, 117, 120, 166-171, 175-176, 178, 240, 276
Economics and Education, $10,14,19,31,52,64,75$, 80, 83, 97, 222, 231, 238, 242-244
Educational Leadership, 11, 15, 17, 51, 53, 104, 223-224, 232, 240-241, 254, 271-272, 274-276, 283, 287, 327
Educational Leadership and M anagement, 270, 273-274
Educational Policy, 2, 24, 26, 48, 69, 72, 81-82, 84, 124-127, 215, 225-230, 239, 242-243, 270, 272, 294-295, 317
Electronic M ail Accounts, 55
Elementary/Childhood Education Preservice, 8, 166-168
English and English Education, Teaching of, 7, 26, $67,105,121,130,132,142$
Faculty, 2, 4, 6, 12, 15, 21-23, 25, 27, 29, 32, 34, 41-42, 45, 48, 50, 54-56, 61-95, 105-111, 113-121, 123-129, 131-132, 134-136, 138-149, 151-156, 158-162, 164-166, 168, 172, 175-179, 181-184, 187, 189-191, 193-205, 207, 209-211, 214, 218-232, 234-258, 261-263, 266, 268-271, 273, 275-288, 290-301, 304-307, 314-316, 318
Family and Community Education, 228, 231-232, 234, 294-295
Financial Aid (see Student Aid)
Giftedness, 66, 70, 172-173, 178-179
Grades, $13,31,33,56,60-61,119,129,138-139$, 169, 171, 176, 179, 185, 189, 201, 271-272, 298, 302-303, 305-306, 312-314, 316
Guidance and H abilitation, 181-182, 204-206, 211
H ealth Education, 1, 17, 63-65, 83-84, 92-93, 104, 144, 149, 151, 178, 181-182, 190-194, 198-199, 201-202, 231-232, 263, 265, 289
H earing Impairment (see Deaf and H ard of H earing)
HEGIS Codes, 101

Higher Education, 2, 11, 14-15, 22, 24, 27, 31, 46-48, 53, 62-65, 69, 73, 75, 77, 79, 83, 94-95, 97-98, 103-104, 106, 108-109, 113, 116-117, 125, 142, 144, 170, 202, 232, 235, 244, 246-247, 253-255, 263, 268-269, 277-283, 294-295, 316-317, 319
History and Education, 7, 70, 83, 87, 94, 96-98, 103-105, 121, 124-125, 127-128, 240
Humanities, 6-7, 44, 59, 64-73, 76, 79, 82-84, 86, 105-142, 232-233, 277, 283, 317
Immunization, 63, 314
Inquiry in Educational Leadership Practice, 103
Instructional Practice (Special Education), 204, 206
Instructional Technology and Media, 10, 192-193, 214, 245-247, 249, 251
International Educational Development, 32, 231-235, 240, 244
Inter-University Doctoral Consortium, 61, 236, 238
Interdisciplinary Studies in Education, 132, 296
Interlibrary Loan, 54
International Student and Scholar Services, 62
Internships, 4, 22, 37, 43, 46, 58-60, 113, 120, 124, 131, 135, 140-142, 159, 178, 187, 205, 210-211, 246-249, 275, 294, 315
Klingenstein Fellows, 23, 50, 270, 274
Language and Literacy, 73, 83-84, 231-233, 235
Languages and Literature, 7
Law and Educational Institutions, 226-227, 235, 277, 279, 294-295
Learning Disabilities, $8,21,63,67,70,75,80,84$, 103-104, 164, 175, 178-183, 185-186, 215
Lecture Series, 26, 257
Library (see Milbank Memorial Library)
M athematics Education, 27, 54, 70, 73, 81, 83, 94, 104, 190, 232, 240, 245, 252-257, 316
Measurement, Evaluation and Statistics, 9, 104, 214, 223
Medical Insurance, 38-39, 63, 302-303, 315
M ental Retardation, 15, 72, 76, 80, 181-182, 204-208, 210-212
Microcomputer Center, 55-56
Milbank Memorial Library, 37, 53-55, 61, 196, 286
Minority Postdoctoral Fellows, 20
M otor Learning, 7, 70-71, 103-104, 143-148, 151, 183-184, 202-203
Music and Music Education, 7, 22, 59, 86, 104-106, 115, 117-118, 120
N eurosciences and Education, 103, 181-182, 184-185, 188-190
New York City Board of Education, 29, 54, 59, 171, 205, 316, 318
$N$ ew York State and $N$ ew York City Certification of Teachers and Administrators, 58
N urse Executives, 48, 103, 264, 270, 327
N ursing Education, 11, 48, 53-54, 77, 80, 91-95, 97, 151, 181-182, 190, 194-197, 261, 286-287
Nutrition and Education, 53, 68, 91-93, 96, 104, 145, 181-182, 195, 198-200, 202
Office of A ccess and Services for Individuals with Disabilities, 63
Organizational Psychology, 33, 215-216, 223, 263, 267, 269, 287-292
Payment Options, 302
Peace Corps Fellows Program, 61, 315-316

Philosophy and Education, $7,44,53,71-72,86,88$, 97-98, 104-105, 121, 125-127, 269
Physical Education, 59, 81, 104, 144-146, 151, 181-182, 190, 201-203, 208, 261
Politics and Education, 9, 93, 103-104, 214, 225-227, 239-240, 271-273, 294
Postdoctoral Study, 300
Private School Leadership, 51, 263, 270-273
Professional Development School, 18, 70, 177
Psychol ogical Counseling, 63, 154-155, 157-160, 184, 283, 288-289
Psychology:
Applied Educational Psychology, 9, 53, 181-182, 185, 190, 214
Clinical Psychology, 6-7, 65-66, 68-69, 74, 76-77, 82, 85, 87, 103-104, 154-165, 175, 184, 189, 220, 283, 327
Cognitive Studies in Education, 9, 103-104, 214, 220
Counseling Psychology, 7, 33, 68, 103,
154-160, 163-164, 183-184, 204, 219, 223, 240, 288
Developmental Psychology, 9, 41, 76, 80, 103-104, 126, 156, 161, 174, 183-184, 186-187, 189-190, 213-223, 283
Educational Psychology (see Cognitive Studies in Education)
Psychological Counseling, 63, 154-155, 157-160, 184, 283, 288-289
Psychology in Education, 7, 9, 53, 154, 156, 158, 165, 190, 218, 220, 222-223, 289 School Psychology, 66, 74, 79, 92, 103-104, 162-164, 181-182, 186-190, 204, 219-220
Social-Organizational Psychology, 11, 49, 103-104, 263, 287-288, 290-294
Reading and Learning Disabilities, $8,21,104$, 181-183, 185-186
Reading Specialist, 33, 104, 174, 181-182, 185-186
Recreation and Fitness, 61, 63
Registration Procedures, 301, 304, 312
Religion and Education, $7,86,103,105,121,125$, 127-128, 238-239
Research Fellowships, 37, 61, 316
Research on Critical Issues, 12
Research Services Department, 54
Residence H alls Information, 297, 309-311
Safety and Security, 307
Scholarships and Grants, 315-316, 319
School Psychology, 66, 74, 79, 92, 103-104, 162-164, 181-182, 186-190, 204, 219-220
Science Education, 10, 17, 34, 64-65, 72, 81, 93-94, 104, 144, 183-184, 232, 240, 245, 256-262, 306, 316
Social Studies, $7,15,54,59,68,82,103,105-106$, 121, 128-132, 139-140, 172, 176, 197, 241, 299, 316
Social-Organizational Psychology, 11, 49, 103-104, 263, 287-288, 290-294
Sociology and Education, 9, 15-17, 26, 76, 78, 84, 93, 96, 98, 103-104, 127, 214, 227-230, 240
Teaching of Spanish, 7, 86, 104-105, 121, 140-142, 240
Special Education, 8-9, 13, 17, 20, 22, 42, 53, $60-61,76,80,92-93,103-104,108,114-115$, 132, 137, 147, 149, 151, 164, 166-167, 169-176, 178-179, 181-184, 186, 188,

203-208, 210-212, 226, 240, 251, 255, 259, 261, 277, 295, 316
Administration of Special Education, 181-182,

## 203, 207, 211

Behavior Disorders, 204, 208
Blindness and Visual Impairment, 93, 181-182,

## 204-212

Cross-Categorical Studies, 181, 204
Deaf and H ard of H earing, 9, 182, 188,
205-206, 208-210, 213
Early Childhood Special Education, 8, 17,
103-104, 166-167, 169-170, 175-176, 178
Gifted Education, 8, 66, 73, 103-104,
166-167, 169, 172-173, 179
Guidance and H abilitation, 181-182, 204-206,

$$
211
$$

Instructional Practice, 181-182, 204, 206-207, 246
Learning Disabilities, 8, 21, 63, 67, 70, 75, 80, 84, 103-104, 164, 175, 178-183, 185-186,

## 215

M ental Retardation, 15, 72, 76, 80, 181-182, 204-208, 210-212
Physical Disabilities, 63, 78, 159, 181-182,

## 204-212

Reading and Learning Disabilities, 8, 21, 104, 181-183, 185-186
Research in Special Education, 181, 204, 207-208, 211
Supervision of Special Education, 181-182, 204, 206-208, 211
Student Aid Information, 297, 303-304, 315-320
Student Conduct Code, 306
Student Life, 24, 37-39, 61-63, 125, 314
Student Organizations, 61-62, 280
Student Personnel Administration, 103-104, 263, 269, 279-283
Student Senate, 62
Student Services, 37, 56, 61, 63, 247, 280
Student Teaching and Prerequisites, 59
Superintendents W ork Conference, 275
Supervision of Special Education, 181-182, 204, 206-208, 211
Teacher Education, Office of, 58-61, 213
Teacher Education Programs, 37, 58-59, 117, 137, $139,167,170,176,207,237,253,258,315$
Teacher Opportunity Corps, 60-61, 316
Teachers College Press, 45, 57, 65-66, 68, 70-72, 74, 76-78, 81-84
Teaching of English to Speakers of Other Languages (TESOL), 7, 104-105, 121, 130, 136, 142, 316
Touchtone Services, 297, 301-302
Transfer Credit, 191-192, 248, 252, 258, 298-299, 314
Tuition and Fees, 50-51, 284-285, 302-303, 315, 319-320, 328
Urban and Minority Education, 32, 47, 65, 243, 296
Urban Education, 17, 47, 70-71, 73, 76, 78, 80-81, 124-125, 167, 169, 204, 207, 228-229, 279, 295-296
Visiting Scholars, 45, 61
Withdrawal from Classes, 303

Post Office A ddress:
Teachers College,
Columbia U niversity,
525 W est 120th Street
N ew York, NY 10027
Web Address:
www.tc.columbia.edu
Telephone: (212) 678-3000
Fax: (212) 678-4048
Address inquiries as follows:
A ccess Services: Office of A ccess and Services for Individuals with Disabilities, 162 Thorndike Lobby, Box 105, (212) 678-3689 (V/TTY)

Admission: Office of Admission, 146 H orace M ann H all, Box 302, (212) 678-3710, tcinfo@www.tc.columbia.edu

Career Services:
Career Services Center,
44 H orace M ann H all,
Box 161, (212) 678-3140
Doctoral Studies:
153 H orace M ann H all,
Box 304, (212) 678-4058
Employment: Office of H uman Resources, 112 M ain H all, Box 149, (212) 678-3175

Student Aid Applications:
Office of Student Aid, 138
H orace M ann H all, Box 309, (212) 678-3714

H ousing: On-campus Residence H alls Office, 1st Floor, W hittier H all, Box 312, (212) 678-3235

International Services: Student Life Center, Thorndike Lobby, Box 308, (212) 678-3406 tcintl@columbia.edu

Payment of Fees: Business Office, 133 Thompson H all, Box 305, (212) 678-3056

Registration, Teacher
Certification, W ithdrawal
N otices, Requests for
Transcripts of Records,
Certification to Government A gencies: Office of the Registrar, 148 H orace M ann H all, Box 311, (212) 678-4050

## Notice of Nondiscriminatory Policy as to Students and Employees

Pursuant to Revenue Procedure 75-50 dated D ecember 8, 1975, and Title IX of the Education A mendments of 1972 ("TitleIX") and part 86 of the Department of H ealth, Education and W elfare regulations promulgated to effectuate Title IX, and The A mericans with Disabilities Act of 1990, Teachers College hereby gives notice of its nondiscriminatory policy as to students and employees:

Continuing its long-standing policy to support actively equality for all persons, Teachers College does not discriminate on the basis of race, color, religion, sex, sexual orienta tion, national origin, age, or disability in the administration of its admission, employment and educational policies or scholarship, loan, athletic and other school-administered programs. R ather, Teachers College affirms that it admits students and selects employees regardless of their race, color, creed or religion, sex, sexual orientation, national origin, age, disability and thereafter accords them all the rights and privileges generally made avail able to students or employees at the school.

Inquiries regarding the application of Title IX of the Educational Amendments of 1972, as amended, and regulations thereunder, to any policy, program or other activity of the College should be directed to Mr. Donald Dean, the Director of the Office of Personnel, who serves as the College's Equal Opportunity Officer. Mr. Dean is also designated to coordinate the College's compliance activities under the A ge Discrimination in Employment Act of 1967, as amended, and the Age Discrimination Act of 1975, and can be contacted through the Office of Personnel Services (Box 149, 112 M ain H all, 525 W est 120th Street, N ew York, N Y 10027, telephone (212) 678-3175.

Inquiries regarding the application of Section 504 of the Rehabilitation Act of 1973, as amended, and regulations thereunder, to any policy, program or other activity of the College should be directed to Associate Dean William J. Baldwin who is designated as the College's Section 504 and The A mericans with D isabilities Act Compliance Officer (Office of the A ssociate Dean, Box 151, 113 Main Hall, New York, N Y 10027, telephone (212) 678-3052.

## How to get to Teachers College

By B us: Four bus routes include stops at W est 120th Street: M 4, M 5, M 11, M 104

By Subway: Take the 1/9 local subway to the 116th Street Station; walk north on Broadway to W est 120th Street. Teachers College is on the
north side of W est 120th
Street, between Broadway and Amsterdam Avenue.

By Car: The H enry H udson Parkway (West Side Highway) is convenient to Teachers College. The highway can be reached from most of the main routes entering $N$ ew York City. W hether driving north or south, leave the W est Side Highway at the 96th Street exit; at the first traffic light turn left (north) onto Riverside Drive; at 120th Street turn right and go two blocks east to the College.
Parking: The following garages in the area will accept outside cars if you phone in advance.

E \& B Operating Corp.
137 W est 108 Street
(212) 865-8315

Riverside Church Garage Riverside Dr. \& 120 St. (212) 870-6736

U pper W estside Garage
234 W est 108 Street
(212) 222-8800

Park Yorkshire Garage
151 W est 108 Street
(212) 865-2314

M orningside Garage
3100 Broadway
(212) 864-9877

# COLUWBIA UNIVERSITY The 性omingside Campus \& Environs 




[^0]:    - Topical seminar: Research methodologies for technology in teaching and learning (1) Professor Lowes. Designed for M.A. or D octoral students in the CCTE department who are

